

NEW GEOMETRIDAE.

BY LOUIS B. PROUT, F.E.S.

SUBFAM. HEMITHEINAE.

1. *Dysphania translucida turbatrix* subsp. nov.

♂♀, 82–88 mm. Thorax above with the yellow anterior patch very broadly interrupted by a blue-black band, leaving posteriorly only a narrow, broken edging of yellow scaling. Abdominal yellow belts narrow.

Forewing with the white markings restricted, the subbasal patch almost obsolete (dusted over with dark scales), the central band narrowed, the extracellular spots wanting, the submarginals more or less reduced and containing little or no yellow scaling.—*Hindwing* with cell-mark small, dark border broader than in *t. translucida*, behind M^1 commonly reaching almost to the cell; the contained yellow spots variable, but on an average considerably smaller than in *t. translucida*; those on either side of R^3 and that before R^1 commonly dusted over or subobsolete.

Solomon Islands: Choiseul, north side, December 1903, a series, including the type ♂; Vella Lavella, March 1908. All in coll. Tring Museum, collected by A. S. Meek.

2. *Dysphania translucida floridensis* subsp. nov.

Like extreme forms of the preceding, but with the whole of the hindwing unclouded between M^2 and SM^2 . On the forewing the central band is purer white, rather broad in cell, very strongly constricted at M^2 .

Solomon Islands: Florida Island, January 1901 (A. S. Meek). Type in coll. Tring Museum.

Pending exact anatomical investigation, I now treat *translucida* Montrz. (1856), *tentans* Walk. (1864), and *tyrianthina* Butl. (1882) as forms of a single species, leaving open the question whether they shall be merged with the yellow Moluccan *numana* Cram. As a rule, the *tyrianthina* group (*tyrianthina* Butl., *fulvilauta* Warr., *semifulva* Warr., and the new forms) can be distinguished by the restricted yellow in front of thorax—but this character is shared by *schoutensis* Joicey and Talbot (1916), which geographically belongs to the *tentans* series, and very occasionally even extreme forms of *tentans* ab. *velata* Bastelb. show signs of transition towards the same peculiarity; the *translucida* group (*t. translucida* only) by the clean white areas, the broad (commonly confluent) yellow markings of the hindwing, and tendency to develop yellow scaling distally in the submarginal spots of the forewing—but the *subalbata* form of “*tentans*” tends to approach this in the ♀. The *tyrianthina* group is generally also noteworthy for the loss of the dark patch in the middle of the hindwing between M^2 and SM^2 , which seems pretty constant in the other forms; but this patch develops in the new form *turbatrix*, commonly appears (though reduced) in *semifulva* Warr., and is well developed (though differently shaped—long and narrow, not confluent with the abdominal patch) in the type specimen only of *fulvilauta* Warr.

3. *Metallochloa misera* sp. nov.

♂ ♀, 20–22 mm. Face grey-green. Palpus in ♂ less than $1\frac{1}{2}$,* with third joint minute, in ♀ $2\frac{1}{4}$, with third joint almost equal to second; above grey-green with a few blackish scales, beneath whitish. Crown green, narrowly white between antennae. Thorax and base of abdomen above grey-green, beneath whitish; crests moderate, red-brown mixed with black. Legs whitish; hind-tibia in ♂ with the pencil rather strong, all the spurs short except the inner proximal.

Wings shaped as in typical *Hemithea*, in ♀ rather broader, yet not quite so broad as in *M. grisea* Prout (NOVITATES ZOOLOGICAE, xxii. 318). *Forewing* with SC^1 free, R^1 connate or stalked, M^1 connate or stalked; grey-green; costal edge spotted, whitish ochreous and black; lines white, irregular, in part ill defined; antemedian from one-third costa, somewhat oblique outward, then sinuous; postmedian from beyond two-thirds costa, incurved at radials, then rather strongly outbent, angled inward on submedian fold (here slightly thickened) and more weakly outward on SM^2 , reaching hindmargin at about four-fifths; terminal line scarcely darkened, interrupted by whitish dots at veins; fringe grey-green.—*Hindwing* with antemedian line wanting, postmedian well expressed; very slight indications of dark cell-mark; termen and fringe as on forewing.

Underside whitish; forewing with slight flush in middle and with costal edge spotted.

Bingerville, Ivory Coast, August 16–18, 1915, type ♂, May and June 1–7, 1915, 2 ♀♀ (G. Melou). In coll. Tring Museum. A ♂ from Bopoto, Upper Congo, May 1903 (Kenred Smith), too poor to describe, has long stood in the same collection.

Near *grisea* Prout, but differently coloured, postmedian line more angulated on fold, etc.

4. *Chlorissa allochroma* sp. nov.

♀, 24 mm. Palpus $2\frac{1}{2}$, second joint with suberect scales above, third joint strongly elongate; red above, whitish beneath. Vertex and thorax concolorous with wings; abdomen very slightly crested anteriorly, posteriorly paler.

Forewing broader than in *solidaria* Guen., termen rather straight and not very oblique anteriorly, much more oblique and slightly waved from M^1 ; SC^1 connate with SC^{2+5} , not touching C, R^1 from stalk of SC^{2+5} , DC^3 strongly oblique posteriorly, M^1 shortly stalked; light cinnamon-rufous, irrorated and strigulated with white as in *solidaria*; costal margin more olive-brownish, darkening apically; lines thick, brown, slightly irrorated with black; antemedian oblique outward from before one-third costa, rather strongly sinuous, the inward curves being at M and SM^2 ; postmedian from two-thirds costa to hindmargin rather near tornus (median area consequently rather broad), angled outward on R^1 , incurved between radials and more deeply between M^1 and SM^2 ; antemedian proximally (very narrowly) and postmedian distally edged with white; terminal dark line indicated in anterior part only; termen minutely dotted with white at vein-ends;

* In this article I have adopted Meyrick's convenient terminology, length of palpus being given in terms of diameter of eye, that of antennal ciliation in terms of diameter of shaft, that of tarsus in terms of length of tibia.

fringe reddish, chequered with whitish opposite the veins, especially in posterior part.—*Hindwing* fairly broad, but with abdominal margin long; termen slightly waved, bent minutely at R^1 and more markedly at R^2 ; concolorous with forewing; antemedian line replaced by an elongate cell-mark; the rest as on forewing.

Underside dirty white, the forewing flushed with reddish and with some smoky apical clouding; markings obsolete; terminal line of hindwing rather strong from apex to R^1 , accompanied on wing-margin by very slight narrow dark shading.

Bingerville, Ivory Coast, 1915 (G. Melou). Type in coll. Tring Museum.

May be provisionally placed in the vicinity of *solidaria*, in spite of its broader wings, more sinuous postmedian line, and entirely different colour.

5. *Prasinocyma eichhorni* sp. nov.

♀, 35 mm. Closely similar to *perpolluta* Prout (NOVITATES ZOOLOGICAE, xx. 430), differing as follows:

Metathorax and abdomen entirely without the yellow dorsal line, the abdomen with some ill-defined purple-brown dorsal markings about the fourth and fifth segments.

Forewing with termen slightly more curved; costal margin purplish chocolate, at base deepening towards Indian purple, only the extreme edge narrowly white; terminal line stronger; fringe pale chocolate, not yellow.—*Hindwing* with the angle at R^2 rather pronounced; termen and fringe as on forewing.

Forewing beneath suffused anteriorly with purple-grey; both wings with fringe proximally nearly of the ground-colour, only slightly suffused, distally nearly as above, though greyer.

Hydrographer Mountains, 2,500 feet, British New Guinea, April 1908 (Eichhorn brothers). 2 ♀♀ in coll. Tring Museum.

6. *Comostolopsis stillata phylarcha* subsp. nov.

♀, 14–15 mm. Smaller than the corresponding sex of *s. stillata* Feld. from S. Africa.

Forewing with all the red-brown spots well developed; the red-brown border, which in *s. stillata* consists of a mere thread, widened into a band averaging .5 mm., broadest towards apex, its proximal edge crenulate.—*Hindwing* with corresponding distinctions, the cell-spot, in particular, enlarged.

Bingerville, Ivory Coast (G. Melou), type ♀ and another; Takwa, Gold Coast (R. E. James). All in coll. Tring Museum.

7. *Comostola ocellulata* sp. nov.

♂, 23–26 mm. In shape, ground-colour, and markings, similar to *mundata* Warr. but larger, the ground-colour sometimes slightly more bluish, the hindwing slightly less narrow.

Forewing with DC characteristic; costal margin more or less strongly rosy at extreme edge, then narrowly pale with dark irroration, on under-surface rather broadly infuscated proximally; cell-spot small, round, brighter red than

in *mundata*; lines of white dots rather well developed, terminal red line very slender, slightly interrupted.—*Hindwing* similar, except costally.

Arizan, Kagi district, Central Formosa, September 1906, July—August 1908, a short series in coll. Tring Museum, the type August 1908; also in coll. British Museum and coll. Joicey. Rantaizan, Formosa, May 1909 (a discoloured example, aberrant in the larger—though equally round—cell-spots) in coll. Tring Museum.

This is no doubt the *subtiliaria* of Bastelberger (*Iris*, xxii. 173), but is very distinct from *nympha* Butl. and the accepted *subtiliaria* in the straight termen of forewing, rosy costa, lack of red dots at outer edge of postmedian dots, etc.

SUBFAM. STERRHINAE.

8. *Rhodostrophia calabra cypria* subsp. nov.

♂♀. *Forewing* with cell-dot well developed, though less large than in *c. tabidaria*; antemedian line generally thread-like or obsolescent; postmedian band narrowed, measuring only about 1 mm.; submarginal shade nearly always present, broad, but not very strong, separated from termen (as in *c. tabidaria*) by a thread of the ground-colour.—*Hindwing* with cell-dot obsolete; postmedian band more or less narrowed; submarginal shade fairly well developed towards tornus, weakening anteriorly. Underside in general more blurred than in the other races.

Cyprus: Aghirda, May 7–14, 1916 (G. F. Wilson), including the type; Athanassa, on the plains, 465 feet, April 30–May 6, 1916 (G. F. Wilson); Troödos, June 24, 1916 (G. F. Wilson), July 14, 1911 (J. A. Bucknill); all in coll. Tring Museum.

Like *R. calabraria* everywhere, this race is very variable in colour, etc., but it seldom shows the bright coloration of the forms from S. and S.E. Europe, and scarcely ever the division of the postmedian band into two lines, as in those from Spain and France.

9. *Rhodostrophia calabra transcaucasica* subsp. nov.

♀. In general almost as brightly coloured as *c. calabraria* from S. and S.E. Europe, the outer pink shade, as in that, touching the termen, the postmedian band nearly solid, not very broad, but rarely narrowed as in *c. cypria*; both wings with cell-dots sharply expressed, though not so large as in *c. tabidaria*.

Transcaucasia: Borjom. 6 ♀♀ in coll. Tring Museum.

10. *Organopoda olivescens orbiculata* subsp. nov.

♀, 34 mm. Larger than *o. olivescens* Warr. (NOVITATES ZOOLOGICAE, iii. 374) from North Queensland.

Forewing with postmedian line more diffuse, rather more proximally placed.—*Hindwing* with the cell-dot slightly enlarged, containing a few whitish scales, and enclosed in a round white spot which has a diameter of nearly 1 mm.

Mount Goliath, Central Dutch New Guinea, 6,000–7,000 feet, February 1911 (A. S. Meek). 2 ♀♀ in coll. Tring Museum.

11. *Semaeopus orbifera* sp. nov.

♂, 25 mm. Head, thorax, and base of abdomen above chocolate-brown, abdomen becoming paler posteriorly, with narrow whitish posterior edges to the segments; underside mostly whitish, of palpus more ochreous, coxae and forefemur tinged with ochreous and reddish. Antennal ciliation about 1. Hindleg with tufts of hair partly dark smoky, partly dull ochreous, tarsus completely aborted, a large spreading pencil of ochreous to whitish hair.

Forewing not very broad; SC² from cell; chocolate with some sparse whitish irroration; lines dirty white, irrorated—except in dots on the veins—with olive-grey; antemedian from one-fourth costa to one-third hindmargin, slightly angulated outward on M and SM² and marked by a pale spot on SC; postmedian from three-fourths costa to beyond two-thirds hindmargin, arising from a small pale spot at costa, very slightly excurved anteriorly, finely lunulate-dentate throughout, the teeth pointing inward on the veins; cell-mark elongate, slightly angled outward at origin of R², white, edged with some grey scales, enclosed in a large circular whitish patch of nearly 2 mm. diameter; termen with slight indications of a dark line, interrupted by white dots at the veins.—*Hindwing* not very broad; termen rounded; similar to forewing but without the first line.

Underside much paler, with the cell-mark and postmedian line indicated; cell-mark of hindwing with rather more extended dark bordering than above.

St. Jean de Maroni, French Guiana. Type in coll. Tring Museum.

12. *Semaeopus simplicilinea* Prout.

♂, 25 mm. Closely similar to *mitranaria* Walk. and *geminilinea* Prout (NOVITATES ZOOLOGICAE, xxiii, 382).

Forewing with ground-colour nearly as in *geminilinea*, but slightly brighter ochreous, the dark irroration rather more reddish; costal region and veins not appreciably darkened; median line single, as in *mitranaria*; postmedian approaching the subapical more closely than in *geminilinea*, and differing from that of both the allies in being rather strongly incurved between the radials.—*Hindwing* coloured nearly as in *geminilinea*, but with the antemedian straight as in *mitranaria*; the ochreous, blackish-edged cell-mark considerably smaller than in either of the allies.

Underside similar to that of *mitranaria* but slightly darker; cell-mark of hindwing reduced as above.

San Ernesto, Bolivia (68° W., 15° S.), 1,000 m., August—September 1900 (Simons). Type in coll. Tring Museum, determined by Warren as *mitranaria*. A slightly larger, more reddish-ochreous example from Pozuzo, Huanuco, Peru, 800–1,000 m. (W. Hoffmanns) in the same collection.

13. *Lipotaxia rubicunda* (Warr.) ab. *irregularis* ab. nov.

♂, 20 mm. Ground-colour much lighter than in the name-type (NOVITATES ZOOLOGICAE, xii, 324), only becoming more reddish on forewing towards apex, at termen, and in the vicinity of a curved dark line which—as in *segmentata* Warr. (NOVITATES ZOOLOGICAE, xiv, 220)—runs from base of M to about two-thirds hindmargin; terminal patch small, dusky, ill-defined.

St. Jean de Maroni. 2 ♂♂ in coll. Tring Museum.

Possibly a separate species though occurring together with typical *rubicunda*. Of two worn specimens from San Esteban, Venezuela, in the Tring collection, one appears to be referable to the name-type, the other to ab. *irregularis*.

14. *Lipotaxia perpulverosa* sp. nov.

♂, 21 mm. Closely akin to *L. rubicunda* Warr., perhaps a subspecies. Head and body nearly as in the darkest examples of that species, abdomen above noticeably infuscated.

Forewing with darker irroration than in *rubicunda*, the costal margin broadly infuscated; markings nearly as in *rubicunda*, the light apical and tornal patches rather more strongly irrorated, connected by more definite mid-terminal shading than in *rubicunda*; a large greyish patch on hindmargin, shaped as in *segmentata* Warr. but much less conspicuous.—*Hindwing* appearing rather fuller than in *rubicunda*, the abdominal margin being relatively less elongate; much more strongly irrorated than in *rubicunda*; a minute ocellated cell-mark discernible; the interrupted subterminal line very fine, close to termen throughout, the apical and the (obsolescent) tornal patch consequently minute—narrower and shorter even than in *segmentata*.

Underside paler than in *rubicunda*, especially on the hindwing; the dark terminal shades weak, that of the hindwing narrow, rufescent rather than smoky and only developed apically.

Rio Ucayali, Peruvian Amazons. Type in coll. Dognin. Also in coll. British Museum from Chaquimayo, S.E. Peru, 2,500–3,000 feet, June–July 1910 (H. & C. Watkins).

15. *Trygodes dissuasa* sp. nov.

♂, 35 mm. Superficially scarcely distinguishable from small, well-irrorated, weakly-marked forms of *spoliataria* Mösch. (*Verh. Zool.-bot. Ges. Wien*, xxxi. 407) = *columbaris* Butl. (*Tr. Ent. Soc. Lond.* 1881, p. 347) (Venezuela—Surinam and Brazilian Amazons), of which it may well be a western representative, though having clearly attained specific rank. Antenna, as in *spoliataria*,* with short lamellate teeth beneath and shortish fascicles of cilia. Midfemur glabrous, wanting the long, dense hair-tuft of *spoliataria*.

Forewing with the green cell-marks reduced, consisting of a not very well defined roundish one at DC³ and a smaller, very indistinct one at DC².—*Hindwing* with the postmedian line almost obsolete, the green cell-mark fairly distinct, circular, lacking the small anterior projection of *spoliataria*.

Quevedo, W. Ecuador (v. Buchwald). Type in coll. Tring Museum.

16. *Ptochophyle nebulifera* sp. nov.

♂♀, 22 mm. Face cream-colour, upper edge vinaceous. Palpus vinaceous on outer side. Vertex and antennal shaft cream-colour, slightly marked with dull vinaceous. Thorax and abdomen cream-colour, tinged with Naples yellow.

Forewing broad, apex minutely produced, termen strongly curved from SC⁵, appearing gibbous in middle; areole fairly long, SC¹ shortly stalked beyond

* Möschler calls them pectinate, which is inaccurate.

it; pale Naples yellow to cream-colour, with irrorations and cloudings of olive-grey to smoke-grey; these occupy, in varying intensity, almost the whole of the wings except a thick, interrupted submarginal line, which consists of more or less confluent paired spots between SC^s and R^1 , between R^2 and M^1 (the anterior of this pair slightly farther from termen), and narrower spots between M^1 and tornus; the cloudings less dense towards base and in region of postmedian line than elsewhere; a minute black cell-dot; fringe pale.—*Hindwing* subquadrate, but with the angle in middle rather more rounded off than in *innotata* Warr. (NOVITATES ZOOLOGICAE, iii. 294), anal angle slightly produced; M^1 not or barely stalked; colours as on forewing, but with the ground-colour distinct at base, in a conspicuous and rather broad postmedian band and a less conspicuous antemedian; subterminal row of spots more complete; cell-dot white; sometimes a darkened patch developed at abdominal margin between postmedian and subterminal bands.

Underside much less clouded; forewing with vinaceous costal shade, expanding between SC^1 and SC^2 in their proximal part, and with vague vinaceous shading in cell.

British New Guinea: Haïdana, Collingwood Bay, April 1907 (A. S. Meek), type ♂ and a ♀; Hydrographer Mountains, 2,500 feet, April–May 1918 (Eichhorn Brothers), 2 ♂♂; all in coll. Tring Museum.

17. *Cosymbia maderensis azorensis* subsp. nov.

♂♀, 22–25 mm. Considerably smaller and (especially in the ♂) decidedly broader-winged than *m. maderensis* B.-Bak. (*Tr. Ent. Soc. Lond.* 1891, p. 216). Reddish irroration generally denser, giving to the insect a much warmer tone.

Forewing with first line often well developed, strongly incurved anteriorly; median shade slightly less oblique than in *m. maderensis*, more reddish, commonly very thick and strong; postmedian row of dots often connected by a complete line, both above and beneath; cell-dot small, only very slenderly black-ringed; terminal dots rarely strong.—*Hindwing* with corresponding distinctions.

Azores, a good series collected by Ogilvie Grant, recorded by Warren (NOVITATES ZOOLOGICAE, xii. 441) as *pupillaria* Hb., and mentioned by me in Seitz (*Macrolep.* iv. 150) under *maderensis* but not fully worked out; type ♂ “above Calheta S. Jorge, 200 feet, May 7, 1907.” The true *pupillaria* only occurred at San Pedro, Santa Maria, 2 ♂♂, May 2, 1903, in a small, deeply-coloured form which will probably deserve naming as a local race, in spite of the extreme variability of *pupillaria* everywhere.

18. *Anisodes (Pisoraca) iners* sp. nov.

♂, 25 mm. Face whitish, upper edge buff. Vertex and antennal shaft pale cream-buff. Palpus with third joint long; whitish, above and on outer side marked with dull red. Thorax, abdomen, and legs pale cream-buff, the inner side of foreleg mostly dull dark reddish. Hindtibia rather rough-scaled, the proximal spur well developed.

Forewing rather elongate, apex not acute, termen subcrenulate; areole long, SC^2 from before its extremity; pale cream-buff, costally somewhat darker; slight scattered dark irroration; a black dot on C near base; an antemedian series on SC, M, and SM^2 before one-third and a narrow dot on cell-fold rather

farther from the base ; a black cell-dot, followed by moderately thick buff median shade, which curves inward very slightly behind middle ; a curved row of small black postmedian vein-dots 2 or 3 mm. from termen ; small interneural brown (buff partly overlaid with black) subterminal spots, namely a weak subcostal, a stronger pair between the radials, one between the medians, and two almost confluent cut by submedian fold ; conspicuous black interneural dots on termen and minuter dots at vein-ends on base of fringe.—*Hindwing* with termen subcrenulate, the teeth at R^1 and R^3 strengthened ; M^1 separate ; similar to forewing, without the subbasal and the first antemedian dot ; the black cell-mark larger, somewhat elongate ; the median shade faint.

Underside with the ground-colour somewhat paler still, but with a great part of the forewing (proximally and costally) flushed with pink ; both wings with feeble cell-mark and postmedian and terminal dots ; forewing in addition with a pinkish median shade and subterminal spots.

La Oroya, Rio Inambari, Peru, 3,100 feet, September 1904, dry season (G. Ockenden). Type in coll. Tring Museum.

The smallest American *Pisoraca* known to me.

19. *Anisodes (Pisoraca) oöthesia* sp. nov.

♂, 28–32 mm. Face brown above, whitish below. Vertex white. Occiput brownish. Palpus slender, with third joint moderately long ; first and second joints whitish beneath. Thorax and abdomen above pale grey, beneath whitish. Legs more brown ; hindtibia with moderate proximal spur.

Forewing not broad, termen waved, tornus not strong ; whitish, irrorated with light grey-brown, more densely at base of costa ; lines grey-brown, not very strong, usually more or less thickened at costa ; antemedian from two-sevenths costa, acutely bent outward in cell and again in submedian area ; median and postmedian dentate outward on the veins ; median well beyond cell-spot, slightly oblique inward to SC, then oblique outward to R^1 , thence about parallel with termen, a little incurved between M^2 and SM^2 ; postmedian finer, nearly parallel with median, but curved instead of angled anteriorly ; double subterminal shade strong, enclosing a row of irregular white subterminal spots ; cell-spot small, black, somewhat elongate ; terminal line black, fine but scarcely interrupted, thickened into dots between the veins ; fringe with minute brown dots at vein-ends.—*Hindwing* not broad, termen markedly crenulate, the teeth at R^1 and (especially) R^3 strong ; SC^1 – R^1 connate or short-stalked, M^1 well separate ; marked nearly as forewing, the cell-mark minutely pale-centred.

Forewing beneath white distally and along hindmargin, with rosy suffusions from base to postmedian line ; postmedian and proximal subterminal shade well developed ; terminal line and dots brown. Hindwing beneath almost unmarked.

Huancabamba, Cerro de Pasco, E. Peru (E. Böttger). 6 ♂♂ in coll. Tring Museum.

20. *Anisodes (Pisoraca) sypharioides* sp. nov.

♂, 32–38 mm. Head and body concolorous with wings, only the extreme anterior edge of vertex and inner edge of antennal shaft somewhat whitened.

Third joint of palpus elongate, but not quite as long as second ; upper and outer sides marked with red.

Forewing not very broad, apex rather acute, termen waved ; areole well developed ; SC² from or from just before its apex ; ochraceous-buff with very fine rufous irroration ; antemedian and median lines rather thick, but faint, the former from one-fourth costa oblique outward, sharply angulated in cell, then waved, with a slight indentation on M and a deeper one on SM², slight dots developed on SC¹, M, and SM² ; median denticulate, exteriorly somewhat ex-curved, rather remote from cell-mark, posteriorly somewhat incurved, reaching hindmargin scarcely beyond middle ; postmedian consisting of a row of distinct blackish-red vein-dots, placed nearly as in *sypharia* Guen. (Oberthür, fig. 3360) ; cell-dot small, white, very finely black-ringed ; termen with distinct interneural dots ; fringe slightly paler, except against the terminal dots.—*Hindwing* with termen crenulate ; M¹ widely separate from R³ ; concolorous with forewing, in proximal part very slightly paler ; antemedian fine, curved ; median sinuous, a little beyond cell-mark ; cell-mark large, black, with minute white pupil ; the rest as on forewing.

Underside paler, posterior part of forewing and almost entire hindwing inclining to whitish ochreous ; cell-marks and the markings beyond present, the terminal dots prolonged into dashes.

Santo Domingo, Carabaya, S.E. Peru, 6,000 ft., January 1901, wet season (G. R. Ockenden). Type in coll. Tring Museum. Also from Cushi, E. Peru (W. Hoffmanns), coll. Tring Museum, and from Loja, Ecuador, coll. Dognin.

Has been misidentified with *sypharia* Guen., which has a different hindleg, white vertex, unmarked underside, and other distinctions.

21. *Anisodes (Pisoraca) endospila* sp. nov.

♂, 36 mm. Closely similar to *rufistigma* Warr. (NOVITATES ZOOLOGICAE, xi, 510), but larger and rather lighter, the ochreous cloudings on the pale ground-colour being less strong. Face with a narrow but rather sharply defined dark reddish band at upper edge. Metathorax with a pair of sharp black spots.

Forewing with apex appearing slightly more acute than in *rufistigma*, the termen being straight and strongly oblique ; costal margin slightly darkened proximally ; lines finer, fairly well expressed ; cell-ring darker, rather more elongate and (like DC³) oblique ; subterminal reddish spots before SC⁵, R² and R³ strong.—*Hindwing* with termen almost straight from the rounded apex to the tail at R³, whereas in *rufistigma* there is an appreciable tooth at SC² and a pronounced one at R¹ ; costal area pale, with the markings more or less obsolete ; cell-ring as on forewing or slightly larger ; median shade thickening and blackening at abdominal margin.

Forewing beneath with the rufous proximal clouding more transverse, its strongest part suggesting an oblique diffuse antemedian line (in *rufistigma* mainly longitudinal, occupying the greater part of the cell) ; median shade obsolescent before SC⁵ ; subterminal spot in front of SC⁵ obsolescent ; cell-mark blackish.

Carabaya, S.E. Peru (G. R. Ockenden) : Oconeque, 7,000 ft., dry season, July 1904 (type) ; Agualani, 9,000 ft., wet season, October 1905 ; Santo Domingo, 6,500 ft., dry season, October 1902 (smaller—33 mm.).

The type, otherwise in beautiful condition, has lost its abdomen, but the other examples show this to be irregularly spotted dorsally with reddish, which is not the case in *rufistigma*.

22. *Anisodes (Pisoraca) zeuctospila* sp. nov.

♂ ♀, 27-29 mm. Face and palpus reddish above, whitish below. Palpus with second joint in ♂ somewhat roughened above, not reaching beyond frons, in ♀ rather longer and smoother; third joint in ♂ moderate, in ♀ a little longer. Head, thorax, and abdomen concolorous with wings. Hindtibia in ♂ rather long, with coarse projecting sex-scales on inner side as far as the single proximal spur.

Forewing broad, apex blunt, termen curved, slightly waved; buff (pale cream-buff, with rather copious pinkish-buff irroration); costal edges irrorated with blackish; lines pinkish-buff; antemedian rather thick but weak, excurved in anterior half, a small indentation at submedian fold; median shade rather beyond middle, not very strong, somewhat dentate, somewhat incurved between radials and more deeply between M^1 and SM^2 ; cell-mark rather weak, forming a thick dash, midway between antemedian and median lines; postmedian line midway between median shade and termen, nearly parallel with former, finer, more dentate, angulated inward near costa; subterminal shades obsolescent, but with characteristic inter-radial spots almost as black as in *bipunctata* Warr. (NOVITATES ZOOLOGICAE, xi. 27), larger, confluent with a thick, equally black streak along R^2 to termen; termen with small black interneural dots and more minute, less black ones at the vein-ends; fringe pale in distal half.—*Hindwing* broad, termen slightly crenulate, a rather stronger but still not prominent tooth at R^1 ; R^2 - M^1 almost connate; first line nearer base than on forewing; median shade almost obsolete (traceable at abdominal margin), the dentate postmedian appearing as a continuation of median of forewing; a small angulated white cell-mark, with broad black circumscription; subterminal shade obsolescent; termen and fringe as on forewing.

Forewing beneath with costal margin irrorated or suffused (in proximal part broadly) with vinaceous; some vinaceous suffusion in cell; cell-mark and the markings beyond reproduced in vinaceous; posterior margin pale. Hindwing pale, the postmedian line indicated, at least at costa; distal area with some vinaceous irroration; terminal dots vinaceous.

Fonte Boa, Upper Amazons (S. M. Klages), August 1907 (type ♂), May 1906 and July 1907 (♀♀), in coll. Tring Museum.

I have also before me a ♀ which may easily prove to represent an aberration or local race of the same species from Suapure, Venezuela.

23. *Anisodes (Pisoraca) calama* sp. nov.

♂, 25 mm. Palpus with third joint shortish-moderate. Hindtibia rather thick, especially in proximal part, which is clothed with rather coarse reddish-tined sex-scales; proximal spur long, distal pair shortish but unequal.

Close to *stramineata* Warr. (NOVITATES ZOOLOGICAE, vii. 145). Ground-colour more yellowish, both wings with the reddish scales rather more sparse, but mostly tipped with black, giving the insect a much more freckled appearance.

Markings the same, but rather sharper, median shade appearing more dentate, postmedian with the teeth accentuated by black dots at the extremities; sub-terminal shades of forewing with more noticeable dark spots at radials and medians. Forewing beneath much more sharply and brightly marked than in *stramineata*.

Calama, Rio Madeira, below Rio Machado, August—October 1907 (W. Hoffmanns). Type in coll. Tring Museum.

24. *Anisodes (Pisoraca) difficilis* sp. nov.

♂♀, 28–31 mm. Like the preceding species, but larger, slightly yellower still. Hindfemur of ♂ with tuft of whitish and pale ochreous hairs in distal part, opposed to a dense pale-ochreous sex-tuft on proximal part of tibia; hindtibia whitish, proximal spur long, distal pair shortish but unequal.

Upper Amazons: S. Antonio de Javary, May 1907 (S. M. Klages), type ♂; Fonte Boa and Rio Chucurras (Rio Palcazu), ♀♀; in coll. Tring Museum.

Probably this or the preceding may be a subspecies of *stramineata* Warr., but as the ♂ of the latter is still unknown it is impossible to form a judgment. I cannot at present distinguish the two new species by their markings, unless perhaps the median shade of forewing in *difficilis* is more deeply bent at the fold and the costal markings more darkened, *i.e.* with denser irroration.

25. *Anisodes (Pisoraca) insitiva* sp. nov.

♂♀, 28 mm. Face above fawn-colour somewhat mixed with grey, beneath whitish. Palpus with second joint reaching well beyond frons, third joint long (little shorter than second); dull dark red, beneath whitish buff. Vertex and antennal shaft a little paler than wings. Thorax and abdomen concolorous with wings, the abdomen becoming a little paler at extremity. Foreleg mixed with red on coxa, the tibia and tarsus infuscated above; hindtibia with the proximal spur long.

Forewing with termen slightly waved; areole wanting; dull fawn-colour, with weak but rather copious darker irroration; costal margin irrorated with dark grey; first line indicated by dark dots on costa (at 3 mm.) and on veins, with a rather stronger, more distally placed dot on cell-fold (at 4 mm.); a moderately large black dot on DC², with some dark scales behind it suggesting the circumscription of an elongate ocelloid mark; median shade very weak, sinuous, in its anterior half midway between cell-dot and postmedian, then curving proximad; postmedian line chiefly indicated by dark vein-dots, strongest in anterior half, those on SC²⁺³ (at their bifurcation) and R² largest and farther from termen, the rest at about 1.5 mm. from termen; termen with black inter-neural dots; base of fringe with minute dark dots.—*Hindwing* with termen appreciably subrenulate, rather strongly convex in anterior part; cell-spot large, whitish, black-edged, strongly recalling that of *obliviaria* Walk. (= *suspiciaria* Snell., *Tijd. Ent.* xxiv. 80, t. 8, f. 6–6c, syn. nov.); median shade almost entirely obsolete; the rest as on forewing.

Underside paler, the forewing posteriorly and almost the whole hindwing nearly white; forewing with slight fuscous suffusion at base of costa and in cell; both wings with moderately thick dark cell-mark, extending nearly the

entire length of DC^{2+3} , and with the postmedian and terminal dots present, the latter elongate, especially on the hindwing, where they are connected by an extremely fine line.

S. India: Palmi Hills (W. H. Campbell), type ♂ in coll. L. B. Prout; Nilgiris (G. F. Hampson), in coll. British Museum (found among "*pallida* Moore," which represented a heterogeneous mixture) and coll. Tring Museum.

Here also belongs the worn *Anisodes* recorded by me (*Ent. Mitt. Deutsch. Ent. Mus.* iii. 244) as "*Pisoraca* sp." (p. 42) from Kosempo, Formosa; the loss of one of the spurs of the hindtibia must have been due to accident or a unique sport. The species is not like any other known in the subgenus *Pisoraca*, its superficial resemblance being to small examples of *obliviaria* Walk., which belongs to the subgenus *Perixera* (= *Phrissosceles*).

26. *Anisodes (Pisoraca) mesotoma* sp. nov.

♂♀, 28 mm. Face buff-pink above, whitish below. Palpus $1\frac{1}{2}$, with third joint in both sexes slightly deflexed, considerably shorter than second; deep red, beneath whitish buff. Head, thorax, and abdomen concolorous with wings. Fore and middle legs in part reddened; hindtibia in ♂ long and slender, the single proximal spur long and slender.

Forewing with areole well developed; cream-buff with rather sparse but coarse vinaceous (slightly rufescent) irroration; cell-dot rather small; lines vinaceous; antemedian zigzag, extremely ill-expressed, but marked with some fine, black-mixed dots on the veins; median better developed and more concise than in most *Pisoraca*, only a little thickened and dentate-edged, gently curved near costa and very slightly incurved in posterior part, placed little beyond the cell-dot; postmedian moderately distinct between the radials (where it shows some tendency to form a pair of small confluent spots), and between M^1 and hindmargin (where it is somewhat sinuous and irregular, bent at fold), slightly indicated in a subcostal spot, otherwise obsolete; proximal subterminal shade indicated by a few small spots, at least between R^1 and R^2 and before and behind M^2 ; distal subterminal shade scarcely indicated; interneural dots at termen and very minute vein-dots at base of fringe.—*Hindwing* with termen faintly waved; similarly marked to forewing, but with the cell-spot forming a small white, dark-edged ocellus, and the postmedian line rather finer and weaker but less interrupted; median line at least as firm as on forewing, rather straight across middle of wing, a little curved anteriorly.

Forewing beneath paler, partly whitish, the costal region proximally with pink suffusion; markings (except first line) present, pinkish, the postmedian line fine but fairly complete. *Hindwing* whitish, feebly marked.

Hainan: Henron, June 1904, type ♂; Youboi, June 1904, allotype ♀. Lower Burma, a weakly marked ♀. All in coll. Tring Museum.

27. *Anisodes tribeles* sp. nov.

♂♀, 24–27 mm. Face red above, becoming pale to whitish below. Palpus in ♂ over $1\frac{1}{2}$, in ♀ about 2, in both sexes with third joint little shorter than second; red above, white or whitish beneath. Vertex and proximal part of antennal shaft dirty white. Thorax and abdomen concolorous with wings. Foreleg and middle femur in part reddened; femora almost glabrous, hindtibia in ♂ not

quite as long as femur, with three crowded spurs, all generally well developed, the most proximally placed shorter than the other two (in Hainan and Formosan specimens sometimes quite short).

Forewing rather short and broad, termen smooth, slightly curved, arcole well developed, SC^s from its apex or little beyond; cream-buff, coarsely irrorated throughout with vinaceous rufous; lines rufous, mixed with grey, antemedian generally weak, placed well before one-third, somewhat curved, sometimes with three small dark vein-dots; cell-spot not minute, not darker than the lines; median shade weak at costa, otherwise well expressed, anteriorly placed at three-fifths wing-length or beyond, behind middle incurved: postmedian weak or obsolete, but always marked with dark vein-dots, midway between median shade and termen or slightly nearer the latter, slightly oblique outward from costa, incurved between radials and very slightly behind M¹; termen with weak interneural dots; fringe pale, least so proximally, with very minute rufous dots touching the vein-ends.—*Hindwing* rather broad, termen nearly smooth, convex, especially between SC² and M¹; first line usually indicated by minute vein-dots; cell-dot very small, white, narrowly dark-ringed; median shade close beyond it, straightish or gently curved; the rest as on forewing.

Underside paler, especially the hindwing; forewing somewhat flushed, except at hindmargin; median shade (at least on forewing) and postmedian dots (on both wings) indicated.

Sudest Island, April 1898 (A. S. Meek), a short series, including the type, in coll. Tring Museum. Also from Hainan and Formosa (Takow), doubtless also in many other localities, though hitherto overlooked.

Exceedingly like some forms of *compacta* Warr. (NOVITATES ZOOLOGICAE, v. 426), which is a true "*Pisoraca*," otherwise scarcely distinguishable; third joint of palpus a trifle longer, at least in ♂, expanse generally less, upperside rather duller, less weakly marked, underside paler, less glossy, the markings better expressed; apparently less variable, or at least I have seen no forms with the black circumscription of the cell-dots materially enlarged or with any additional cloudings, such as sometimes occur in *compacta*.

28. *Anisodes viator* sp. nov.

♂, 31–36 mm. Like *prunelliaria* H.-Sch. (*Samml. Aussercur. Schmett.* i. t. 59, f. 329) in colour and markings, but considerably smaller, the wings relatively shorter and broader. Hindleg of ♂ nearly smooth, except for a small femoro-tibial hair-pencil (in *prunelliaria* the femur is hairy, the pencil perhaps stronger). Abdomen less pale, with the dorsal dots at base weaker (less mixed with black). Wings on an average rather deeper in colour, on account of the denser red irroration.—*Forewing* without definite red patches at base; the red markings more mixed with black; median shade often nearer to the cell-spot.—*Hindwing* and underside with corresponding distinctions.

Carabaya, S.E. Peru: La Oroya, Rio Huacamayo, Tinguri, and Santo Domingo (G. Oekenden), in coll. Tring Museum, the type from La Oroya, September 1904, dry season. Also from San Antonio, W. Colombia, 5,800 ft., November–December 1907 (M. G. Palmer), in coll. L. B. Prout et coll. Dognin; and 1 ♂ from Chulumani, Bolivia, January 1901, wet season (Simons), in coll. Tring Museum.

29. *Anisodes stigmatilinea* sp. nov.

♂♀, 30–32 mm. Similar to *urccaria* Guen., but readily distinguished as follows :

Hindleg of ♂ with strong hair-pencil arising from femoro-tibial joint and extending fully one-half the length of tibia. First abdominal tergite with a pair of black dots at its posterior end (the dot at anterior end of second tergite also strong, the subsequent ones weakening). Wings relatively less broad ; irroration stronger, dots on the antemedian and postmedian lines stronger, that of the postmedian on R² more displaced proximally ; median line rather sharper, marked distally with rather noticeable dark dashes on R¹, R³, and M¹ ; cell-rings rather more elongate.

Santo Domingo, Carabaya, S.E. Peru, 6,000–6,500 ft., November 1902, wet season (Ockenden). Type ♂ and two ♀♀ in coll. Tring Museum.

30. *Anisodes pilibrachia* sp. nov.

♂♀, 22–27 mm. Almost exactly like *ampligutta* Warr. (NOVITATES ZOOLOGICAE, iii. 376 ; Timor, Queensland, Louisiades, etc.), replacing it in New Guinea, the Solomons, etc. Distinguished by the ♂ foreleg which is quite normal in *ampligutta*, but in the new species has the tibia and first joint of tarsus densely clothed with felt-like hair. Third joint of palpus in ♂ slightly less elongate. Ground-colour a little whiter, the thick shadowy lines consequently standing out more sharply and giving to the insect a more variegated appearance ; median shade in general even more acutely dentate ; cell-mark of the hindwing subject to the same dimorphism—wholly black or only narrowly black-edged.

British New Guinea : Upper Aroa River and Milne Bay. Dampier Island. Solomons : Bougainville (type in coll. Tring Museum), Choiseul, Vella Lavella, Guizo, Kulambangra, Rendova, Isabel, Guadalcanar, S. Christoval.

It is interesting that the two allies occur together on Dampier Island.

31. *Anisodes (Stibarostoma) turneri* nom. nov.

Anisodes pallida Turn., *Proc. Linn. Soc. N.S. Wales*, xxxii. 691 (1908) (nec Moore).

I have already pointed out (*Ent. Mitt. Deutsch. Ent. Mus.* iii. 244) that this interesting species has been misidentified. As it has never been named, I have pleasure in dedicating it to Dr. Turner, whose able revision of the subfamily has first made known its distinctive structure. The type will be from Queensland, presumably in his collection. It also inhabits New Guinea, Rook Island, and the Solomons.

32. *Anisodes (Perixera) argentosa* nom. nov.

Anisodes monetaria var. A. Guen., *Spec. Gén. Léop.* ix. 418 (1858) ; Oberth., *Et. Léop.* xii. fig. 3363 (1916) (Borneo).

This is clearly a valid species, not a form of *monetaria*. In *monetaria*, except occasionally in the Ceylon form, the areole seems to be invariably wanting (India, Malay Peninsula, Borneo) ; in every example of *argentosa* which I have seen (Travancore, Khasis, Penang, Singapore, Borneo) a small areole is present. Moreover, the distinctions, though slight, are sufficiently constant, notwith-

standing the variability of *monetaria*, and to the practised eye confusion is impossible. The silvery sangle of the hindwing, so inconstant in *monetaria*, is invariably large in *argentina*. The following are undoubtedly mere aberrations of *monetaria*: *hyperythra* Swinh., *argentispila* Warr., *pleniluna* Warr., *areolaria* Guen. The race from the Moluccas, New Guinea and its satellite islands, the Solomons and N. Queensland, is also variable, but I think tenable under the name of *Anisodes monetaria ceramis* Meyr. (*Tr. Ent. Soc. Lond.* 1886, p. 209). To which race (if either) *homostola* Meyr. (*Tr. Ent. Soc. Lond.* 1897, p. 72; Talaut) belongs it is impossible to judge on a single specimen, though its specific identification is clear enough. Another single specimen, *inornata* Warr. (NOVITATES ZOOLOGICAE, iv. 216; Banda Islands), seems to be a mere aberration of *m. ceramis*, and is superficially a good deal like *homostola*.

33. *Anisodes (Perixera) flavispila* subsp. nov.

♂♀. The white-grey ground-colour less tinged with brownish than in the North Indian *flavispila* Warr. (NOVITATES ZOOLOGICAE, iii. 372)—which also extends to Hainan—the discal ring of the hindwing only about one-half the size, on underside generally wanting, never strong; forewing beneath with the cell-mark reduced in size.

Milne Bay, British New Guinea, November 1898—February 1899 (A. S. Meek), 4 ♂♂, 2 ♀♀ in coll. Tring Museum, including the type ♂. Also from Humboldt Bay (Dutch New Guinea) and Fergusson Island, the latter mentioned by Warren in describing the species.

34. *Odontoptila elaeoides* sp. nov.

♂♀, 13–14 mm. Head black, the palpus beneath reddish ochreous. Antennal ciliation of ♂ long. Thorax and abdomen olive, paler and more ochreous beneath. Legs pale, the anterior pair more reddish, and on the upper and inner sides spotted with black; hindtarsus of ♂ slender, about one-half the length of the thickened tibia.

Forewing olive; lines dark grey, the postmedian best developed, slender; antemedian excurved in cell, incurved behind; median arising beyond three-fifths costa, incurved behind middle; postmedian parallel with termen except posteriorly, where it bends almost to tornus, ending in a small dark tornal spot; terminal line fine, slightly interrupted at the veins; fringe ochreous, dark-spotted opposite the veins, especially near apex and at R³ and M¹.—*Hindwing* with termen toothed at R¹ and feebly at R³, smooth posteriorly; as forewing, but with first line wanting and tornal spot rather ill-defined.

Underside reddish, the forewing smoky in cell and a part of disc, the hindwing paler at abdominal margin; median and postmedian dark lines well developed, especially the latter; forewing with tornal spot well developed.

St. Jean de Maroni, French Guiana. Type ♂ and 2 ♀♀ in coll. Tring Museum.

Much smaller and darker than *subviridis* Warr. (NOVITATES ZOOLOGICAE, xi. 43) and *mimica* Dogn. (*Ann. Soc. Ent. Belg.* xlv. 343), the two species to which it comes nearest in shape, colour, and markings; excisions in termen more shallow, especially in the ♂; ♂ hindtarsus much shorter (in *subviridis* about as long as tibia). Rather recalls "*Ptychopoda*" *lignicolor* Warr. (NOVITATES

ZOOLOGICAE, xi. 41), which has still smoother margins, SC² of hindwing more shortly stalked and the ♂ hindtarsus aborted, but which may possibly also have to be referred to this genus, with which it agrees in the double areole, etc.; its ♀ is unknown and may prove to have a two-spurred hindtibia, while that of *Odontoptila* has all the spurs well developed.

35. *Scopula* (*Pylarge*) *plionocentra* sp. nov.

♂♀, 18–22 mm. Face black. Palpus blackish, beneath pale. Antenna in ♂ with the joints projecting, ciliate in long fascicles (about 2). Vertex, thorax, and abdomen concolorous with wings, collar more ochreous. Foreleg mostly blackened on upper and inner sides; hindleg in ♂ rather long, the tibia slender, with two long spurs, tarsus not abbreviated.

Forewing fairly broad, apex rather blunt, termen smooth, gently and regularly curved, little oblique anteriorly, more so posteriorly; pale ochreous whitish with a tinge of flesh-colour; a few scattered black scales in places; cell-dot small, sharply black; lines greyer, rather diffuse and shadowy; antemedian from about one-third costa, excurved in cell, then very oblique inward to one-fourth hindmargin; median shade from costa well beyond middle (sometimes at almost two-thirds), excurved well beyond cell-dot, slightly incurved at fold, reaching hindmargin about middle; postmedian line indicated by minute black vein-dots placed on the proximal edge of the first subterminal shade, that on R² rather strongly displaced proximad; pale subterminal shade sinuous, with the inward curves at the radials and at the fold, placed between two feeble greyish shades of about equal width and shape; termen with minute black interneural dots.—*Hindwing* with costa rather straight nearly to apex, termen gently rounded; first line wanting; median shade just proximal to the sharp black cell-dot, slightly curving round it; a postmedian shade-line in addition to the two subterminal ones, separated from them by a narrow pale space; terminal dots as on forewing.

Underside rather glossy, forewing strongly suffused in proximal half; both wings with black cell-dot and pale subterminal with dark border on either side; terminal dots indicated.

Warri (Niger), 1897 (Dr. Roth), the type ♂ dated September, in coll. Tring Museum; also from Agberi (Niger), Abanga River (Gaboon), Masindi and Busiro (Uganda).

Misidentified by Warren (NOVITATES ZOOLOGICAE, v. 242) as *minorata* Bdv. (*Faune Ent. Madag.* 115) and made the type of a superfluous genus.

36. *Scopula* *insincera* sp. nov.

♂, 22 mm. Closely similar to *sincera* Warr. (NOVITATES ZOOLOGICAE, viii. 208). Antennal shaft thicker, more strongly dentate, with longer fascicles of cilia (about 2). **Hindtibia not dilated**, little longer than femur; tarsus slender, **longer than tibia**.

Forewing slightly less pure white (more creamy), subcostally with some fine black irroration, which is wanting in *sincera*; lines more direct, all nearly parallel with termen, the first rather far from base, strongly oblique, the last farther from termen than in *sincera*; terminal dots virtually wanting.—

Hindwing with a few scattered black scales; postmedian line more sinuous; last line placed farther from termen; terminal dots obsolete.

Forewing beneath brown, only remaining whitish behind fold, in two narrow outer bands (distally to postmedian and between subterminals) and on fringe. Hindwing beneath with feeble postmedian line, two weak macular subterminals and traces of terminal (strongest between the veins).

Johannesburg (E. A. Bacot), type in coll. L. B. Prout; also a ♂ from Transkei (Miss F. Barrett) in coll. British Museum; the latter a sport with SC^2-R^1 of hindwing stalked for about one-third of their length (normally in this species and *sincera* about connate or barely stalked).

37. *Scopula euphemia* sp. nov.

♂♀, 16–19 mm. Face and palpus black. Vertex whitish. Antennal joints slightly projecting, ciliation little over 1. Collar tinged with ochreous. Thorax and abdomen whitish. Hindtibia of ♂ little elongate, somewhat thickened and flattened, fringed on upperside, tarsus little shorter than tibia.

Forewing rather narrow, costa very slightly curved, termen rather strongly oblique, smooth, gently curved; white, sprinkled with scattered black scales; lines light brown, rather thick; antemedian very weak and diffuse, apparently sharply angled outward near the cell-dot; cell-dot strong, deep black; median shade strongly oblique from middle of hindmargin to SC^5 near postmedian, obsolete anteriorly; postmedian line parallel with termen, 1.5 or 2 mm. therefrom, lunulate-dentate, the teeth directed distad and blackened; subterminal shades feebly indicated; a fine slight brown line on termen, marked with black inter-neural dots; fringe white, with some minute and sparse black irroration beyond middle.—*Hindwing* not broad, termen little convex, very slightly prominent (through a change of direction) about R^3 ; first line wanting, the other markings continued, more proximally placed, the median shade preceding the cell-dot.

Underside similar, the forewing more suffused costally as far as the cell-dot; teeth of postmedian line less black than above.

S. Nigeria: Warri, August–October 1897 (Dr. Roth), type ♂ (worn) and two ♀♀ (good); Ilesha (Capt. Humfrey), a worn ♀. All in coll. Tring Museum.

38. *Scopula erinaria isolata* subsp. nov.

♂, 25–26 mm. *Forewing* with the median line fine, passing midway between the cell-dot and the postmedian (in *e. erinaria* Swinh., *Tr. Ent. Soc. Lond.* 1904, p. 553, thicker, closely approximated or appressed to the postmedian); shade beyond postmedian rather strong. *Hindwing* with median shade well proximal to the cell-dot.

Transkei, Cape Colony (Miss F. Barrett). Type in coll. Tring Museum.

The hindtibia may be slightly thicker than in *e. erinaria*.

39. *Scopula supina* sp. nov.

♂♀, 22–27 mm. Face red-brown, in part or almost wholly overlaid with blackish. Palpus red-brown or blackish above, paler beneath. Vertex and antennal shaft proximally slightly paler than the body, occiput narrowly black-edged behind; antennal ciliation over 1. Thorax and abdomen flesh-colour,

the abdomen with (generally indistinct) darker dorsal spots. Hindtibia in ♂ moderately long, dilated, with strong hair-pencil, the tarsus about three-fourths.

Forewing rather broad, apex acute or even minutely produced, termen smooth, straightish and little oblique anteriorly, somewhat more oblique posteriorly; flesh-colour, with slight and irregular dark irroration; lines greyish-fleshy, extremely oblique; antemedian indistinct, acutely angulated in cell near the cell-dot; cell-dot rather small, black; median shade rarely thick, slightly dentate outward on the veins, running from middle of hindmargin in the direction of apex (or costa close thereto), but strongly angled at R^1 ; postmedian slender and weak, but accompanied by slightly elongate dark dots on the veins, parallel with median, thus almost reaching the termen at R^1 , but retracted anteriorly; subterminal shades moderate or rather strong, the proximal parallel with postmedian, the distal with termen, the pale space between interrupted where they meet about the radials; termen with interneural black dots.—*Hindwing* with costal margin fairly long, apical region well rounded, termen smooth, little convex, the bend at R^3 inappreciable; markings of forewing (except first line) continued, the median shade generally thick, proximal to the cell-dot, anteriorly weak or obsolescent, postmedian line farther from termen, pale subterminal line complete, though anteriorly narrow.

Underside paler and more weakly marked, especially the hindwing.

Uyoro and Uganda, a good series (chiefly ♂♂) from various localities, mostly collected by Dr. Ansoerge, the type ♂ from Kiorbezi, January 4, 1898. Also from Songive River, Lake Nyassa. Also (mostly ♂♂) in a generally smaller and more deeply coloured form, which will perhaps require a subspecific name, from Ivory Coast and Nigeria; the ♀ seems, however, to be in general more deeply coloured than the ♂ in this species.

This is the *Emmiltis* (?) *minorata* of Swinhoe (*Tr. Ent. Soc.* London, 1904, p. 558), an equally unfortunate determination with that of Warren mentioned under *S. plionocentra* above. The present species is recognisable at a glance by its shape and extraordinarily oblique postmedian line, which looks as though it ran to the termen, the terminal dot between SC^5 and R^1 forming a direct continuation of the postmedian dots.

40. *Scopula penricei* sp. nov.

♂, 30 mm.; ♀, 28 mm. Nearest *sanguinisecta* Warr. (*NOVITATES ZOOLOGICAE*, iv. 53), differing as follows:

Face and palpus red-brown, merely irrorated with black, the palpus scarcely pale beneath. *Forewing* with termen slightly more irregular, the bend (or change of direction) about R^2-M^1 being more appreciable; lines browner (less grey), the first two weak, noticeably incurved in submedian area; antemedian even more acutely angulated subcostally; postmedian making a rather wide sweep anteriorly and with a minute tooth outward between SC^4 and SC^5 ; the markings beyond blue-grey, consisting of an elongate curved mark between the radials and a double spot between M^2 and SM^2 ; nearer the termen a pair of more or less developed blackish dots at R^1 and another pair at fold; fringe more variegated, dark-dotted opposite the veins.—*Hindwing* with termen slightly more waved, the angle at R^1 rather more pronounced; median line more waved;

postmedian rather straight, somewhat farther from termen, at least in middle of wing; fringe as on forewing.

Underside more fleshy; forewing without grey cloudings, both wings, on the other hand, with some conspicuous scattered black scales, especially on anterior parts of forewing.⁶

Angola: Chella Mountains, April 1900 (Penrice), type ♂ and allotype ♀ in coll. Tring Museum.

Warren (NOVITATES ZOOLOGICAE, viii. 208) did not discriminate this from true *sanguinisecta*. The leg-structure of the ♂ seems to agree pretty closely—hindtarsus about as long as the tibia, which is thickened, with hair-pencil, perhaps less strongly than in *sanguinisecta*, but slightly damaged.

41. *Scopula oliveta* sp. nov.

♂, 24 mm. Face black. Palpus small, black, pale beneath. Vertex white. Antennal shaft proximally dotted with black; ciliation 1. Collar ochreous brown. Thorax and abdomen whitish. Fore and middle legs infuscated on inner side.

Forewing rather broad, costa gently arched, apex fairly pronounced, termen very faintly waved, more oblique behind R^2 than anteriorly; R^2 from before middle of DC; white, in places with very faint olive-green tinge; a black cell-dot; light olive-green postmedian markings, consisting of a small and weak dash in front of SC^2 , an oblong patch 2 mm. in length behind SC^2 , crossing well beyond R^1 and proximally touching the succeeding patch at R^2 , and a somewhat pear-shaped patch between R^2 and hindmargin, its broad and rounded end anterior, its greatest width (about R^2-M^1) 2.5 mm., at hindmargin about .5 mm., here proximally edged with some dark scales: indications of a narrow, paler olive-green, subterminal shade, angled inward about R^2 , and becoming more distinct near tornus; a terminal row of interneural black crescents or flattened triangles; fringe shaded with olive-green.—*Hindwing* with termen weakly bent at R^3 ; cell-dot larger than on forewing; similar markings beyond, the postmedian patches a little farther from termen, the subterminal shade slightly broader, more distinct anteriorly than posteriorly.

Forewing beneath with the cell-dot obsolescent, the postmedian patches shadowy, grey, the entire area proximal to this, excepting the hindmargin, suffused with rosy grey, the subterminal shade obsolete; fringe whiter. Hindwing beneath unmarked, except for the cell-dot and terminal triangular dots.

San Jacinthe Valley, Theophilo Ottoni, Minas Gerães, spring 1908 (F. Birch). Type in coll. Tring Museum.

A ♂ from Espirito Santo in coll. British Museum has the antennal ciliation over 1, the hindtibia little thickened, but with the hair-pencils present, hindtarsus about 1. I have seen a further example in the Oxford Museum.

42. *Scopula polyterpes* sp. nov.

♂, 20 mm. Face and outer side of palpus black. Vertex and antennal shaft white; ciliation about 1. Collar brown. Thorax and abdomen dirty white with some dark irroration, the abdomen with faint broad cloudy belts

dorsally. Foreleg infuscated on upper and inner sides; midtibia slightly infuscated; hindtibia dilated, with strong hair-pencil, the tarsus almost 1.

Forewing with termen smooth, gently curved; dirty white with a tinge of pinkish buff, the distal area predominantly ceru drab, the whole with sparse dark irroration; cell-dot black; lines brown; antemedian slight, commencing in a fine, extremely oblique blackish line at one-fourth costa, forming a small spot at SC 3 mm. from base, excurved in cell, then oblique inward, inbent behind M and rather irregular; median arising from a small dark spot beyond midcosta, first running towards cell-dot, then oblique outward, acutely angled outward at R^1 , then approximately parallel with termen, but lunulate-dentate, sinuate inward between radials and between M^2 and SM^2 ; postmedian fine, similarly formed to median, accentuated by some small black dots on veins and a small black mark on radial sinus; subterminal line whitish, lunulate-dentate, projecting inward and thickened between radials and filled-in proximally with slight paired dark spots in front of this and near tornus; terminal dots sharp, black, very slightly elongate, very slightly connected by a fine grey line; fringe brownish.—*Hindwing* with termen rounded, extremely weakly suberenuate, the projection at R^3 scarcely noticeable; proximally rather more coloured than forewing, especially in vicinity of median line, where there is some cinnamon suffusion; cell-mark enlarged into an irregular ocellus of about .5 mm. diameter; first line wanting; median line strong, incurved proximally to cell-mark, acutely angled outward on base of M^1 ; postmedian line and distal area nearly as in forewing, the paired dark spots near tornus proximally to subterminal line more strongly developed.

Both wings beneath (especially the forewing) more infuscated, and with fine blackish cell-dot and dark median and postmedian lines; subterminal line and dark spots proximal thereto obsolescent on forewing, distinct on hindwing.

Porten, Hainan, July 1904. Type in coll. Tring Museum.

43. *Scopula praesignipuncta* sp. nov.

♀, 20 mm. Similar to *sybillaria* Swinh. (*Tr. Ent. Soc. Lond.* 1902, p. 658), but altogether more sharply marked.

Forewing with antemedian line well developed, rather regularly curved, the proximal area with rather strong dark irroration; cell-dot round, relatively extremely large; dark shading beyond postmedian rather strong, the pale subterminal line thick, with a longer proximal projection between the radials than in *sybillaria* and a rather ample one at tornus; terminal dots strong.—*Hindwing* with the markings similar but not quite so strong, excepting the cell-spot, which is fully as large as on forewing and slightly elongate along the discocellulars.

Underside with pale band between cell-dot and postmedian line rather noticeable.

Ryukyu Islands, June–August. Type in coll. Tring Museum.

44. *Scopula ophthalmica* sp. nov.

♂♀, 20–21 mm. Face black. Palpus black, narrowly pale beneath. Crown white. Antennal shaft white, tinged with brown; joints slightly projecting,

ciliation in ♂ strong, rather over 1, in ♀ vestigial. Collar light brown. Thorax and abdomen white, dorsally tinged with brown except at ends of abdominal segments. Hindtibia in ♂ thickened, a fringe of projecting scales on upperside proximally, a thin hair-pencil on upperside from femoro-tibial joint, a stronger pencil beneath; hindtarsus in ♂ slender, over one-half. Wings slightly less broad than in *fibulata* Guen.

Forewing white, with brownish cloudings and fine irroration; lines brownish; antemedian at one-fourth, oblique and slightly thickened from costa, angled subcostally and again on M and SM², between these two veins incurved and slight; cell-dot black, surrounded by a small, not very distinct, brownish ring; median line formed as in *fibulata* but rather less thick, placed rather more distally to the cell-dot; postmedian formed nearly as in *fibulata*, but with the tooth at SC⁵ slighter, that at R¹ rather longer and more acute; distal area with shadings nearly as in *fibulata*, the thick proximal projection of the white subterminal line at the radials rather longer, that at the fold rather more angular and less compact; terminal dark line broken into interneural dots and not running round apex; fringe white, feebly dark-speckled.—*Hindwing* much less dusted than in *fibulata*; markings similar; proximal line more slender; white subterminal corresponding to that of forewing, the dark spots in its proximal side less confluent than in *fibulata*.

Both wings beneath glossy, almost unmarked, the forewing strongly tinged with brown-grey except at hindmargin, the hindwing white.

Bonthain, Celebes, 3,000—7,000 ft., August 1896 (W. Doherty). 4 ♂♂, 1 ♀ in coll. Tring Museum.

Possibly a local race of *ocellata* Warr. (NOVITATES ZOOLOGICAE, vi. 33) from Sambawa, but the ♂ antennal joints appear to project slightly less and the hindtarsus may be a trifle longer.

45. *Scopula pseudophema* sp. nov.

♂♀, 20–21 mm. Head and body concolorous with wings, the face mixed with dark fuscous in upper part, the palpus mostly dark fuscous on outer side, the abdomen with a row of blackish dorsal spots. Antennal ciliation in ♂ fine, little longer than diameter of shaft. Hindtibia in ♂ moderately dilated, fringed above and with a strong hair-pencil from femoro-tibial joint, tarsus a little over one-half.

Forewing rather broad, termen smooth, anteriorly straightish, then curving and becoming more oblique; whitish ochreous, in places tinged with rather deeper ochreous; black irroration minute and not copious; lines fine and feeble, formed of pink scales with a slight black admixture, almost or quite obsolete at extreme costa; antemedian from one-third costa, about vertical to middle of cell, then oblique inward and sinuous to about one-fourth hindmargin; cell-dot small, black; median line beyond, angulated outward on R¹, then oblique inward and sinuous to middle of hindmargin, the deepest curve being inward between M² and SM²; postmedian about 2 mm. from termen, punctuated with black dots or outward teeth on the veins, from M² to hindmargin (and sometimes also more weakly anteriorly) overlaid with black scales, on R¹ angulated outward, incurved rather deeply between radials and very slightly between M¹ and SM²; distal subterminal line somewhat similar to postmedian but weaker, only black-

mixed in posterior half; proximal subterminal represented by pink, strongly black-irrorated spots except between the radials, the anterior two small and round, sometimes weak, the two between R^1 and M^2 elongate, those behind M^2 rather more proximal, subconfluent, smaller before than behind the fold, the general arrangement strongly recalling the Palaearctic species *Ptychopoda dimidiata* Hufn.; termen with large black interneural dots; fringe almost unmarked.—*Hindwing* with termen rounded; markings similar to those of forewing, antemedian line wanting, median proximal to the cell-dot.

Underside weakly marked, cell-dots, terminal dots, and on forewing also the postmedian line and succeeding spots more or less well developed.

Tambura, Southern Bahr-el-Ghazal, type ♂ in coll. Tring Museum. Binger-ville, Ivory Coast, July 28-31 (G. Melou), a ♀ in coll. Tring Museum. Sierra Leone (A. Bacot), a more reddish ab. (♀) in coll. L. B. Prout.

46. *Scopula subpulchellata* sp. nov.

♂♀, 22-26 mm. Rather larger and paler than the Hainan forms of *pulchellata* Fab. (= *addictaria* Walk.). Hindtibia in ♂ less strongly fringed above than in *pulchellata*, the hair-pencil whitish (not ochreous, as in that species), the tarsus a trifle longer.

Forewing with antemedian line more uniformly expressed (in *pulchellata* commonly accentuated between M and SM, and often with minute blackish dot near hindmargin, which is wanting in *subpulchellata*); discal ocellus larger but rather vague, nearly always blind; the characteristic markings distally to the postmedian feebly developed.—*Hindwing* scarcely distinguishable from that of pale *pulchellata*, the postmedian line on an average less sinuate between the radials.

Underside more weakly marked than in *pulchellata*.

Hainan: Manchoy, June 1902, type and others; Secha, May 1902; Hoihow, May 1902; Cheng-Mai, July 1902 and August 1904; Porten, July 1904; Taipinshi, June 1906; a good series in coll. Tring Museum.

Mr. Burrows has kindly examined the genitalia of three males of *subpulchellata* and two of *pulchellata*, and finds that they differ greatly. In the new species the valves are fairly symmetrical, while in *pulchellata* the asymmetry is very marked indeed; in the former the socii are long, in the latter represented by short horny processes; the penis also differs widely. Indeed, *subpulchellata* genitalia come much nearer in all respects to *misera subtincta* Warr. (NOVITATES ZOOLOGICAE, iii. 372) from Tenimber, though the cerata are stouter and bowed, and are more equal in length.

47. *Scopula graphidata* sp. nov.

♂, 27 mm. Larger than *perlineata* Walk. (*List Lep. Ins.* xxiii. 775). Ground-colour slightly whiter, but with a sparse, minute black irroration in places which gives to it a slightly rougher aspect.

Forewing with antemedian line better developed, marked with dark dots on the veins; median line angled outward on SM^2 ; postmedian fine, well expressed throughout (brown, finely overlaid with blackish), with much deeper bays inward at the folds, the proximal end of these more blackened than in *perlineata*; proximal subterminal shade thickened in the bays of the postmedian; terminal

dots strong, elongate.—*Hindwing* with angle at R¹ rather pronounced ; cell-dot small ; postmedian line nearly as on forewing ; terminal marks strong, elongate, almost confluent, the fine lunules of the posterior half giving to the wing-margin a more crenulate aspect than in *perlineata* ; fringe more distinctly dotted at vein-ends, the dot opposite R¹ conspicuous.

Underside more strongly marked than in *perlineata*.

Celebes (W. Doherty). 2 ♂♂ in coll. Tring Museum.

Presumably represents *perlineata* Walk. and *spilodorsata* Warr. (NOVITATES ZOOLOGICAE, ii. 93) in Celebes, but provisionally I regard the three as distinct species.

48. *Scopula ochricrinita* sp. nov.

♂, 29–31 mm. Closely related to *extimaria* Walk. (*List Lep. Ins.* xxiii. 782). Smaller. Hindtibial tuft ochreous and whitish-ochreous, without smoky admixture ; hindtarsus still shorter (one-fifth or less ; in *extimaria* about one-fourth). Abdomen with the dorsal dots small.

Forewing with the black scales sparser than in *extimaria* ; no black subcostal antemedian dot ; cell-spot forming a weak greyish oval mark instead of the black dot of *extimaria* ; postmedian with the black marks usually smaller and weaker ; terminal dots smaller, beneath weaker (but here showing more tendency to be connected by a greyish line).—*Hindwing* with all the black dots of *extimaria* present, but reduced in size.

Khasia Hills, Assam, February 1894 (type), March 1894 (2 ♂♂), October 1893 (1 ♂, Cherrapunji), in coll. Tring Museum. Also a few other specimens in different collections.

It should be added that *stigmata* Moore, sunk by Hampson to *extimaria*, is a good species, or at the least a very distinct race, more nearly agreeing with the new species in the cell-mark of the forewing above and in the continuous terminal line beneath, but with blacker tibial tuft than in *extimaria*, tarsus still less abbreviated, large blotches distally to postmedian of forewing, etc. Hampson's description of *extimaria* (*Faun. Ind. Moths*, iii. 427) was evidently drawn up mainly from *stigmata*.

49. *Scopula anatreces* sp. nov.

♂, 35 mm. Face brown-black. Palpus blackish, narrowly pale beneath. Vertex and antennal shaft whitish brown, about 12 of the proximal joints of the antenna (after the first 2 or 3) each with a distinct black dot ; joints somewhat projecting, bearing strong fascicles of cilia. Collar ochreous-brown. Thorax and abdomen whitish brown, abdomen with a few black dorsal dots. Fore and middle legs partly brown ; hindleg whitish, the tibia dilated and somewhat elongate, with light ochreous-brown hair-pencil, the tarsus almost one-half.

Forewing very slightly narrower than in most of the *moorei* group, termen oblique ; whitish brown, with sparse and minute black speckles ; cell-dot small, grey, faintly and narrowly surrounded with brownish shading ; lines light brown ; antemedian very fine and slight, but marked with black dots on the veins ; median thicker, but weak, dentate, slightly more oblique than termen from middle of hindmargin to R¹ midway between cell-dot and termen, thence very slightly oblique inward to costa ; postmedian fine, not strong, in part faintly

edged proximally with grey, between the radials with thick black conjoined lunules, behind M^2 with three slighter ones; this line is slightly oblique inward; from costa to cellule 7, acutely toothed outward on SC^3 and especially on R^1 , more minutely on R^2 and M^1 , these teeth punctuated with minute black dots; a ferruginous distal edging to the black radial lunules, succeeded by two short thick ferruginous interneural streaks; faint traces of similar pattern behind M^2 ; subterminal shades very faint; termen with strong black interneural dots; fringe with slight blackish dots at vein-ends.—*Hindwing* with termen faintly subcrenulate, with a slight but appreciable angle at R^2 ; antemedian line wanting, median shade continued, straightish, just proximal to the cell-dot, which is black and less small than on forewing; postmedian line continued, lunulate-dentate, more direct than on forewing, the blackenings and the ferruginous markings beyond obsolete, except at extreme abdominal margin; the rest nearly as on forewing, the pale subterminal line apparently deeply incurved between the radials.

Underside with cell-dots and terminal dots black, median shade and postmedian line well expressed, black-grey, the postmedian on both wings rather strongly inbent between the radials; forewing proximally suffused, its hindmargin and the hindwing whiter.

Arizan, Formosa, September 1906, type in coll. Tring Museum. Other examples from the same locality and of the same date in coll. Wileman (3 ♂♂) et coll. British Museum (2 ♂♂).

Hitherto confused with *S. moorei orientalis* Prout (*Ent. Mitt. Deutsch. Ent. Mus.* iii. 241). Hindtarsus rather longer, hindwing slightly more angled, cell-spot of forewing concise, of hindwing black, postmedian line more deeply inbent between the radials, terminal line less continuous, fringe-dots obsolescent, median shade on forewing more dentate, on hindwing straighter, underside more strongly marked. It is just possible that it may prove a remarkable dimorph of *punctatissima* Bastelb. (*Ent. Rundsch.* xxviii. 23 = *quadrimacula* Wilem., *Ent.* xlvi. 80, syn. nov.); ♂ antenna the same, tarsus apparently rather shorter, wings rather narrower, paler, antemedian line more expressed, postmedian of hindwing more distally placed, cell-spot of hindwing quite different.

50. *Scopula ochrifrons* sp. nov.

♂, 30–32 mm. Face, vertex, and front of thorax clear light ochreous; collar deep ochreous; palpus bright ochreous, mixed above with blackish. Antennal shaft blackish, at extreme base ochreous; ciliation long. Thorax, abdomen, and legs white; foreleg infuscated on upper and inner sides; hindtibia greatly thickened, with strong hair-pencil; tarsus abbreviated (about one-fourth).

Forewing pure white; costal edge very narrowly tinged with black; veins finely reddish grey, as in *radiata* Warr. (*NOVITATES ZOOLOGICAE*, iv. 434); first line obsolete; median line grey, more or less weak, rather thicker than postmedian, rather near the latter, especially at R^1 , where it is somewhat bent; postmedian fine, grey, 2 mm. from termen, almost parallel therewith, inappreciably incurved behind M^2 , curved in front of R^1 but almost obsolete anteriorly; terminal line faint; fringe white.—*Hindwing* weakly angled at R^2 ; lines of forewing continued.

Underside white; forewing with costal margin infuscated, the dark shade broad at base, narrowing distally, a scarcely appreciable rosy-grey flush in cell.

E. Peru: Pozuzo, type (in coll. Tring Museum) and others; Huancabamba, Cerro de Pasco; La Merced, Chanchamayo. E. Bolivia: Charuplaya; Chulumani.

Intermediate between *deiliniata* Warr. (NOVITATES ZOOLOGICAE, iv. 433) and *radiata* Warr., both of which, however, have the face black. Size of the former, and with similar lines, though the postmedian is in general rather nearer to the termen and the two subterminal shades (often developed in *deiliniata*) are always wanting; forewing much less flushed beneath, more blackened at costa. Pure white colour and darkened veins as in *radiata*. *S. leuculata* Snell. (*Tijdschr. v. Ent.* xvii. 59, t. 4, f. 8 = ? *nigricosta* Dogn., *Hét. Nouv. Amér. Sud.* iv. 8), which I have not seen, agrees in the ochreous head but has no markings.

51. *Scopula contramutata* sp. nov.

♂♀, 21–24 mm. Smaller than *immutata* Linn. Antennal ciliation of ♂ similar. Hindtarsus of ♂ relatively somewhat longer (about two-thirds). The characteristic wing-form of *immutata* somewhat more accentuated (hindwing fully rounded apically, straightish from before R^1 to R^2 , slightly bent at R^2 , again straightish to near tornus). Both wings in ♂ on an average more ochreous than in *immutata*, the lines fairly thick, the dentate form of the postmedian and its inward curve between the radials always well noticeable; forewing beneath less uniformly infuscated than is usual in *immutata*, the markings consequently standing out more distinctly. ♀ very like a diminutive *immutata* ♀, the postmedian line (as in ♂) characteristically dentate and incurved.

Chabarovsk, Ussuri Railway, June 4–22, July 14 and 30, August 9 and 19, 1910 (E. Borsow), 8 ♂♂ and 1 ♀ in coll. Tring Museum.

This is presumably the (hitherto unknown to me) Amurland "*immutata*" of Staudinger and Rebel and may possibly be a subspecies, but I strongly incline to regard it as distinct.

52. *Scopula nitidissima* sp. nov.

♂, 34–37 mm. Larger than *pallida* Warr. (*Proc. Zool. Soc. Lond.* 1888, p. 322), purer white and even more glossy. Lines almost entirely obsolete, the postmedian faintly discernible and sometimes the median and the proximal subterminal; cell-dots as in *pallida*, terminal dots entirely wanting, or at most with a few very minute anterior ones discernible with the lens.

Kashmir Valley, 7,000 ft., July–August 1903 (Colonel Ward), type in coll. Tring Museum. Also 4 ♂♂ from Kulu, 1883 (Young).

I scarcely think this can be a form of *pallida*, as Colonel Ward took both together without intermediates; but in any case it is worthy of a separate name. Unless the antennal ciliation be slightly longer and the hindtibial hair-pencil slightly less strong, I can find no structural distinction; hindtarsus as long as tibia.

53. *Scopula okinawensis* sp. nov.

♂, 28 mm. Face black. Palpus mixed with black above and on outer side. Vertex white. Collar ochreous. Thorax and abdomen white.

Forewing rather broad, termen smooth, slightly bowed; white, with extremely fine grey irroration; costal edge tinged with buff, at least proximally; lines grey; antemedian fine, obsolete anteriorly, straightish from SC nearly 5 mm. from base to hindmargin 3 mm. from base; cell-dot minute, blackish; median shade weak, not very thick, obsolete anteriorly, straightish (the posterior inward curve extremely slight) from SC at three-fifths wing-length to hindmargin rather beyond middle; postmedian better expressed, waved, in posterior half parallel with termen (2 mm. therefrom), between the radials very weakly incurved, anteriorly curving gently away from apex; subterminal white line rather more sinuous, hardly defined except by the absence of grey dusting; termen with blackish interneural dashes; fringe white.—*Hindwing* with termen moderately bent at R^3 , tornus pronounced; first line wanting; median shade very weak, sinuous, proximal to the minute cell-dot; postmedian slightly farther from termen than on forewing, especially in middle, but bending slightly towards tornus behind fold; distal area as on forewing.

Forewing beneath with costal margin more broadly and brightly ochreous; otherwise somewhat suffused as far as the median shade, except at hindmargin; cell-dot indicated; postmedian line well expressed, slightly thicker and browner than above; terminal dashes well developed, slightly connected by a fine and weak line. Hindwing beneath white, with minute cell-dot and fine, not very strong outer line, this occupying the position of the proximal subterminal shade above, *i.e.* only about 1.5 mm. from termen; terminal line nearly as on forewing.

Okinawa, May 1904. Type in coll. Tring Museum.

54. *Scopula flavifurcata* sp. nov.

♂♀, 24–26 mm. Face black. Palpus black, pale beneath. Antennal ciliation in ♂ apparently not long (damaged). Vertex, thorax, and abdomen pale yellowish, body beneath paler; collar ochreous. Fore and middle legs somewhat infuscated on upper and inner sides; hindtibia in ♂ with moderately strong hair-pencil, tarsus little abbreviated (almost three-fourths).

Forewing with apex minutely produced, termen more oblique in posterior than in anterior half, very slightly waved; cream-colour with a tinge of buff and with minute dark irroration (mostly quite sparse, in costal region somewhat more copious); cell-dot small, blackish; lines buff, rather thick; antemedian rather before one-third, rather ill-defined, somewhat excurved in cell; median from costa somewhat beyond middle, curved and rather ill-defined anteriorly, passing close beyond cell-dot and thence parallel with termen; postmedian midway between median and termen, little incurved at radials but with ill-defined proximal teeth, slightly incurved at fold; subterminal shades obsolescent; terminal dots minute and not intense; fringe concolorous.—*Hindwing* with termen bent at R^3 ; cell-dot rather sharper than on forewing; antemedian line wanting; median just proximal to cell-dot, little curved; postmedian farther from termen than on forewing, more incurved between radials; proximal subterminal shade better developed than on forewing; terminal dots almost obsolete.

Forewing beneath somewhat suffused, especially costally; minute cell-dot present; median and postmedian lines well developed, smoky, the postmedian rather more proximal than above. Hindwing beneath paler, the cell-dot and lines very feeble.

Subathu, July 1889 (type), August and June 1889 (2 ♀♀), the last-named an aberration of more pinkish-buff tone, more recalling *furfurata* Warr. (NOVITATES ZOOLOGICAE, iv. 218), under which name Warren misidentified these examples.

55. *Scopula proterocelis* sp. nov.

♂, 22 mm. Face and upperside of palpus blackish.~ Crown and antennal shaft yellow; antenna minutely ciliated. Collar ochreous-yellow. Thorax and abdomen yellow, paler beneath.

Forewing yellow, with very sparse minute dark specks (invisible to the naked eye); cell-mark brown-grey, slightly elongate; an irregular, not very strong, brown-grey postmedian line, feeble at costa and between R^3 and SM^2 , rather deeply indented and slightly thickened between the radials, incurved between M^1 and SM^2 ; rather distinct dark interneural dots at termen, connected by a line of a slightly deeper yellow than the ground-colour; fringe bright yellow.—*Hindwing* with termen slightly bent at R^3 ; postmedian line obsolete; cell-mark accompanied distally by a red-grey spot resembling that of *straminea* Feld. (*Reise Novara, Lep. Het.* t. 128, f. 33), but rather more anteriorly placed (between SC^2 and R^3 —in *straminea* from R^1 to the medians); terminal dots moderately expressed anteriorly, becoming obsolescent posteriorly.

Underside paler, both wings with brown-grey cell-dash, sinuous postmedian line (that of hindwing the weaker), and slight grey terminal line bearing indistinct interneural dots.

Hlesha, N. Nigeria (Capt. Humfrey). Type in coll. Tring Museum.

At first sight remarkably similar to *straminea* Feld., which lacks the terminal dots, has the postmedian line much less irregular above, obsolete beneath, etc.

56. *Scopula rectisecta* sp. nov.

♂, 30 mm. Face and upperside of palpus black. Vertex and shaft of antenna orange-ochreous; antennal joints little projecting, ciliation rather over 1. Thorax, abdomen, and legs pale yellowish; forefemur darkened above; hindtibia rather long, strongly dilated, with hair-pencil, tarsus less than one-half.

Forewing moderately broad, costa somewhat arched posteriorly, termen smooth, very gently curved; smooth yellow, without irroration; costal edge narrowly golden; markings golden-yellow; antemedian line obsolescent, discernible from M (just beyond origin of M^2) to hindmargin; cell-mark elongate, not strong; postmedian line straight, about 3 mm. from termen, not appreciably nearer thereto at R^1 than posteriorly, obsolescent costally; no definite terminal line, the ground-colour here slightly deepened; fringe deep golden.—*Hindwing* almost inappreciably bent at R^3 ; cell-mark indicated; postmedian line continued, complete, almost as straight as on forewing, reaching abdominal margin 2 mm. from torus; fringe deep golden.

Underside paler, unmarked; costal edge and fringes nearly as above.

Bitje, Ja River, Cameroons (Bates). Type in coll. L. B. Prout, paratype (rather smaller, worn) in coll. Joicey.

Intermediate in size and markings between *transsecta* Warr. (NOVITATES ZOOLOGICAE, v. 241) and *laevipennis* Warr. (NOVITATES ZOOLOGICAE, iv. 42), postmedian line straighter than in the latter, less oblique than in the former.

57. *Scopula coagulata* sp. nov.

♂, 24 mm. Face black. Palpus black, narrowly pale beneath. Vertex and antenna cream-colour; antennal joints slightly projecting, fascicles of cilia rather long (about 2). Collar ochreous. Thorax and abdomen cream-colour, above clouded with buff-yellow, the abdomen in addition with some minute and sparse blackish irroration. Legs nearly as in the following species.

Forewing slightly narrower than in *butyrosa* Warr. (*Proc. Zool. Soc. Lond.*, 1893, p. 362), termen scarcely waved, very gently curved; cream-colour, somewhat clouded with buff or buff-yellow and with sparse black irroration; lines buff; antemedian slightly oblique outward from one-third costa, bent in cell, falling almost vertically on hindmargin at nearly two-fifths; cell-dot black, placed on a small roundish buff cloud; median from well beyond middle of costa, excurved (on R^1 almost angled) far beyond cell-dot, then running inward to fold at middle of wing, finally almost vertical to hindmargin but somewhat dentate; postmedian arising from a thickened spot on costa before three-fourths, lunulate-dentate and highly irregular, forming an outward projection at SC^2 and R^1 , deeply incurved between the radials and again rather deeply at fold, the outward teeth accentuated by small black vein-dots; subterminal shades interrupted, especially the proximal, which is almost entirely wanting opposite the inward curves of the postmedian; terminal black dots small but distinct in anterior half, very minute in posterior; fringe concolorous.—*Hindwing* with termen very feebly bent at R^1 ; first line wanting; median curving proximally round the cell-dot, somewhat angled outward at M; cell-dot sharply black, not surrounded with buff; postmedian similar to that of forewing, but with the irregularities less extreme and the dark vein-dots obsolescent; proximal subterminal complete, stronger than distal, and following the same course as postmedian; terminal black dots small, but the series complete.

Underside whitish, the forewing costally more shaded with buff and in cell with vague reddish-smoky suffusion; cell-dots present; forewing also with postmedian line (most distinct anteriorly), a slight thickening at its origin, as above, and a suggestion of a similar mark indicating the origin of the median; terminal dots feeble.

♀ similar but larger, the black central dot of forewing above weak or almost wanting, leaving the roundish buff patch more noticeable than in the ♂.

Khasia Hills, Assam (native collector). Type ♂ and 2 ♀♀ in coll. Tring Museum.

Warren labelled the ♂ *inangulata*, but it is very different from that species except in the general course of the postmedian line.

58. *Scopula sublutescens* sp. nov.

♂, 20 mm. Face brown-black, narrowly pale below. Palpus brown-black above, pale beneath. Vertex and antenna cream-colour; ciliation fairly close and even, scarcely over 1. Collar ochreous. Thorax and abdomen whitish cream-colour, the thorax with some slightly darker admixture. Forefemur and tibia infuscated on upper and inner sides; middle leg more slightly infuscated; hindtibia somewhat long, dilated, with long pale hair-pencil; hindtarsus about one-half.

Forewing with termen smooth, almost straight; whitish cream-colour, without black irroration (a few very minute fuscous dots in region of C discernible with strong lens); lines rather thick and vague, darker cream-colour, inclining to buff-yellow, wavy, all approximately parallel with termen; antemedian from beyond hindmargin, apparently angled in cell, but obsolete anteriorly; median from about middle of hindmargin, very slightly more oblique; postmedian rather finer than the others; both subterminals developed, the pale line between them rather thick, weakly sinuous; no cell-dot; terminal dots extremely minute, scarcely traceable except in anterior part; fringe cream-colour, unmarked.—*Hindwing* with termen very weakly bent at R^3 ; markings of forewing continued, except the antemedian.

Forewing beneath with vague reddish-smoky suffusions, except at hindmargin and on subterminal line; proximal part with some slightly darker irroration; a fine postmedian line and minute terminal dots faintly discernible. Hindwing beneath whitish, unmarked.

Khasia Hills, Assam (native collector). 2 ♂♂ in coll. Tring Museum.

59. *Scopula internata praeruptorum* subsp. nov.

♂♀, 25–30 mm. On an average considerably larger than *i. internata* Guen. from South Africa. Ground-colour less ochreous, in the ♂ generally fleshy-grey, in the ♀ generally dark grey or ochreous-grey, in both sexes very variable.

Forewing with strong black dots on the fringe opposite the veins; the blotch at tornus rarely well developed, in this case oftener dark grey than reddish.—*Hindwing* with termen appearing slightly more irregular than in *i. internata*, though this is in part an optical illusion due to the presence of a strong black fringe-dot opposite the very slight angle at R^3 ; fringe otherwise dotted as on forewing.

Escarpment, British E. Africa, 6,500—9,000 ft., January to March 1901 (W. Doherty). A very long series in coll. Tring Museum.

60. *Scopula perfilata* (Warr. MS.) sp. nov.

♂♀, 21–24 mm. Face black. Palpus blackish-fuscous above, light ochreous beneath. Tongue strong. Vertex white. Antennal shaft whitish ochreous, the minute serrations beyond the middle darker; ciliation in ♂ nearly 2. Collar ochreous. Thorax and abdomen whitish ochreous, the latter above with rather strong blackish irroration, which usually condenses into more or less conspicuous mediodorsal spots. Foreleg rather strongly, middle leg less strongly, infuscated on inner side; hindtibia of ♂ dilated, not markedly elongate, with a long pencil of whitish-ochreous hairs, hindtarsus rather over two-thirds.

Forewing rather elongate, termen bowed, little oblique anteriorly; whitish ochreous, with moderate blackish irroration; lines light brownish; antemedian weak, sometimes almost obsolete, strongly oblique outward from one-fourth hindmargin, acutely angled in cell, scarcely traceable anteriorly, sometimes marked with blackish dots on SM^2 , M, and SC; cell-dots small but sharply black; median shade strongly oblique outward from middle of hindmargin, vaguely defined distally, but generally appearing to throw out strong teeth on the veins, strongly curved or angled in radial region, where it is far distal to the

cell-dot; postmedian very near termen (2.5 mm. at costa, well within 2 mm. in most of its course), chiefly expressed by blackish dots or minute dashes on the veins, that on R^1 displaced distally (1 mm. from termen), that on R^2 more proximal; subterminal shades present but vague; terminal interneural dots (or short dashes) strong; fringe somewhat irrorated, especially opposite the veins.—*Hindwing* with costa relatively rather long, termen rounded, tornus prominent; median shade thick, incurved round the cell-dot, sometimes also with slight extension round cell-dot distally; postmedian about 2.5 mm. from termen, incurved between radials, accentuated by distal teeth on the veins; subterminal shades well developed; termen and fringe as on forewing.

Underside without ochreous tinge; forewing, except at hindmargin and sometimes distal margin, with rather strong smoky suffusion, hindwing whitish; both with postmedian line and cell-dot well developed, terminal dots more or less connected (at least on forewing) by a fine line; fringes whitish, not or scarcely irrorated.

Java: Bandong (type and others), Arjuno, Pengalengan (Preanger), a series in coll. Tring Museum; Sindanglaya, June 23, 1910, Nongkodjadja, July 7, 1910 (E. A. Cockayne), 2 ♀♀ in coll. L. B. Prout, kindly presented by the captor, but hitherto awaiting determination.

Distinguishable at a glance from *consimilata* Warr. (NOVITATES ZOOLOGICAE, iii. 313) by the narrower wings, which rather approach in shape those of the African *sublobata* Warr. (NOVITATES ZOOLOGICAE, v. 19 = *khakiata* Warr., NOVITATES ZOOLOGICAE, xii. 389).

61. *Scopula paradela* sp. nov.

♂ ♀, 27–29 mm. Larger than *delospila* Warr. (NOVITATES ZOOLOGICAE, xiv. 140). Antenna of ♂ with similarly projecting joints and long ciliation. Hindtarsus considerably longer (over three-fourths; in *delospila* about one-half—Warren must have mismeasured). Abdomen without the minute blackish or fuscous dorsal dots which are commonly developed in *delospila*. Ground-colour slightly more creamy, without the slight violet-grey reflections of *delospila*.

Forewing slightly broader than in *delospila*; black basal dot behind M (omitted in Warren's description) wanting; antemedian line complete though not strong, not black-dotted on veins; median shade less deeply incurved behind middle; postmedian rather near termen, less inbent at R^2 ; fringe in proximal half more evenly irrorated, not developing definite dots at ends of veins.—*Hindwing* with cell-dot larger than in average *delospila*; fringe as on forewing.

Biagi, Mambare River, British New Guinea, 5,000 ft., February–March 1906 (A. S. Meek). Type ♂ and 3 ♀♀ in coll. Tring Museum.

62. *Scopula homaema* sp. nov.

♂ ♀, 23–26 mm. Akin to the preceding, but scarcely a subspecies. Hindtarsus of ♂ scarcely three-fourths. Wings slightly broader still. Whiter, with sparse irroration.

Forewing with antemedian line rather more tremulous; postmedian more deeply lunulate-dentate, the projection at R^1 appearing less acute (the anterior part being less oblique inward), the inward curves between the radials and at

the fold, on the other hand, rather deeper; terminal dots elongate; fringe proximally less irrorated, but with appreciable dark dots opposite the veins.—*Hindwing* with postmedian line correspondingly formed; proximal subterminal shade markedly crenulate; fringe as on forewing.

Solomon Islands (A. S. Meek): Isabel, June—July 1901, type ♂; Treasury Island, Choiseul, Vella Lavella, Kulambangra, single ♀♀; all in coll. Tring Museum. Also in coll. British Museum from Alu, Solomon Islands, misidentified as *perlineata* Walk. by Butler (MS.), as *undilinea* Warr. by Hampson (MS.).

63. *Scopula saphes* sp. nov.

♂♀, 21–24 mm. Face black. Palpus black, pale beneath. Vertex white. Antenna of ♂ subdentate, with fascicles of rather long cilia (about $2\frac{1}{2}$). Collar dull ochreous. Thorax and abdomen concolorous with wings. Legs mostly pale; foreleg partly infuscated; hindtibia of ♂ dilated, somewhat elongate, with long white hair-pencil and proximally fringed with white above, tarsus a little over one-half.

Forewing rather broad, costa scarcely arched anteriorly, markedly so posteriorly, termen smooth, very gently curved; similar in colour to *amala* Meyr., but slightly more olive-tinged, the blackish irroration less extremely sparse, the markings olive-grey rather than ochreous; cell-dot larger than in *amala*, terminal dots strong though small; first line strongly curved near costa, median line thick, strongly excurved in anterior part, incurved behind cell; postmedian denticulate, slightly incurved between the radials and posteriorly; pale subterminal line rather thick, widening between the radials and near tornus, the greyish shades which border it broad, fairly well developed, especially in the ♀.—*Hindwing* with termen rather strongly bent at R^3 , markings as on forewing but first line wanting, median shade curving round proximal side of cell-dot, sometimes partly surrounding it.

Forewing beneath pale greyish, hindwing whiter; both with sharp cell-dot, postmedian line and terminal dots; median and subterminal markings also traceable.

British New Guinea: Upper Aroa River, end of June 1903 (A. S. Meek), 3 ♂♂ (including type), 1 ♀; Hydrographer Mountains, 2,500 ft., January and April 1918 (Eichhorn brothers), 1 ♂, 1 ♀.

64. *Scopula heba* sp. nov.

♂♀, 16–18 mm. Smaller than *amala* Meyr. (*Tr. Ent. Soc. Lond.* 1886, p. 207).*

Forewing with the lines finer, especially the postmedian, which is also less wavy; median line rather more oblique than postmedian (in *amala* the two are parallel).—*Hindwing* with termen less noticeably bent at R^3 than in *amala*; lines finer, postmedian less incurved between the radials.

Solomon Islands: Arawa, Bougainville (type) to Guadalcanar. Also from St. Aignan, Woodlark, and Rossel Islands. A fine series in coll. Tring Museum.

* Meyrick's measurements must have been made on the continental method—from tip to tip in set specimens.

65. *Scopula inactuosa* sp. nov.

♂♀, 15–19 mm. Similar to *actuaría* Walk. Hindleg in ♂ with the knee-pencil more conspicuous—apparently longer, oftener drawn out from the abdominal cavity. Wings more glossy, on an average more weakly marked.

Forewing with apex a little more rounded, termen rather less oblique; postmedian line thicker, less angulated subcostally, not punctuated with black dots on the veins.—*Hindwing* with postmedian line similarly thickened.

Forewing beneath with dark glossy suffusion, which is rarely noticeable in *actuaría*.

Lesser Sunda Islands, probably everywhere from Sambawa to Tenimber (Sambawa, Sumba, Alor, Timor, Wetter, Dammer, Tenimber, in coll. Tring Museum, the type from Tambora, Sambawa, 2,500–4,000 ft., April to May 1898, (W. Doherty). Also from Key Islands, Toekan Besi, and, I think, Saleyer.

On the Sunda Islands name-typical *actuaría* does not occur, but is represented by subsp. *nigranalis* Warr. (NOVITATES ZOOLOGICAE, iii. 378 = *parumnotata* Warr., NOVITATES ZOOLOGICAE, v. 19, syn. nov.), which in weakly marked examples almost loses the characteristic dark posterior spot of the postmedian line, while in some examples of *a. actuaría* from Borneo this spot begins to manifest itself, so that the races cannot be regarded as very sharply defined.

66. *Scopula serena* sp. nov.

♂♀, 16–18 mm. In structure, shape, and markings scarcely distinguishable from *lechrioloma* Turn. (*Proc. Linn. Soc. N.S. Wales*, xxxii. 658), from Queensland. The wings sometimes not quite as narrow, but rather variable.

Forewing slightly less white, more inclining to flesh-colour, sometimes even assuming the pinkish-buff tinge of the *minorata* group; irroration in general rather less sparse than in *lechrioloma*; antemedian line present, though weak; the other lines more retracted near costa, the median usually rather more oblique than the rest; terminal dots generally stronger than in *lechrioloma*.—*Hindwing* concolorous with forewing and with similar development of the terminal dots.

Forewing beneath (as also in *lechrioloma*) slightly infuscated, hindwing beneath whitish, sometimes with the lines fairly well developed.

Freetown, Sierra Leone, 1914 (A. Bacot); type and others in coll. L. B. Prout. Also from Ashanti, Niger, Angola, Unyoro, Kavirondo, British East Africa, Nyassaland, Rhodes, Natal, Madagascar, Seychelles, in various collections.

Mr. Bacot bred the species *ex ovo*, the imagines emerging in February 1915. The larva is extraordinarily long and thin, indeed thread-like, blackish brown with some paler brown mottlings, and with the head, thorax, legs, anal end, and prolegs almost entirely of the paler brown. That of *lactaria* Walk., which was bred by Mr. Bacot at the same time, is much less extreme in shape and is green in colour.

67. *Scopula campbellii* sp. nov.

♂♀, 21–23 mm. Akin to *aspilataria* Moore, easily distinguishable as follows: Hindtibia of ♂ rather less thick, the tarsus rather longer (slightly over one-half).

Forewing with ground-colour paler, in the ♂ with very little, in the ♀ with

moderately copious (though very fine), dark irroration; cell-dot distinct, though very small; median line rather more oblique than termen; postmedian rather more markedly crenulate; proximal subterminal nearer to the postmedian than on hindwing.—*Hindwing* with median line more proximal; a cell-dot as on forewing; postmedian less incurved between the radials (crenulate as on forewing).

Forewing beneath with strong smoky suffusion, leaving hindmargin and a thick subterminal line and generally also a band between the median and postmedian lines whitish.

Palni Hills, S. India (W. H. Campbell). A short series in coll. L. B. Prout, including the type. Also in coll. British Museum.

68. *Scopula pseudodoxa* sp. nov.

♂♀, 15–18 mm. Similar in structure, coloration, and markings to *coundularia* WARR. (NOVITATES ZOOLOGICAE, v. 18), and the species which I identify as *thysanopus* TURN. (*Proc. Linn. Soc. N.S. Wales*, xxxii, 663), all three being perhaps races of a single widely-distributed species. Build rather more robust than in *coundularia*, apex of forewing slightly less rounded, scaling less glossy, ground-colour sometimes paler, markings less uniform, the median line often weaker, the space between this and the postmedian often extended, postmedian in general somewhat more sinuous, proximal subterminal shade showing more tendency to break up into spots. Forewing beneath more or less markedly infuscated, which is not the case in *coundularia*.

Woodlark Island, March—April 1897, type and others in coll. Tring Museum; St. Aignan; Sudest, April 1898. All collected by A. S. Meek.

I strongly suspect this is the New Guinea "*homodoxa*" of Meyrick, but as one of the most important structural characters he gives (*Tr. Ent. Soc. Lond.* 1886, p. 208) is "hindtarsus one-third" and this was evidently drawn from the Tonga and Fiji relative, his name must be restricted to that species.

69. *Scopula paradeipharis* sp. nov.

♂♀, 15–18 mm. Face and upperside of palpus black. Vertex whitish buff. Antenna with the proximal segments dotted with black above; ciliation in ♂ even, little over 1. Thorax and abdomen pale pinkish buff above, whiter beneath. Hindtibia in ♂ rather elongate, dilated, with strong whitish hair-pencil; tarsus scarcely one-fifth.

Forewing of medium breadth, costa gently arched posteriorly, termen smooth, very slightly curved, moderately oblique; pinkish buff, sprinkled with a very few minute black scales; costal margin paler; lines darker, less pinkish, weak or obsolescent at costal margin, in part pale-edged (slightly reminiscent of the New-World genus *Scelolophia*); antemedian fine, at about one-third, bent in cell; median generally firm, little thickened, bent near costa, slightly incurved in submedian area, occasionally touching, but usually farther beyond, the minute black cell-dot; postmedian fine, excurved near costa, twice sinuate inward; subterminal whitish, sinuous, accompanied proximally and distally by moderate shades; terminal dots minute; fringe almost unmarked.—*Hindwing* with termen smooth, rounded; first line wanting; median sometimes weak, generally proximal to, occasionally touching, the minute black cell-dot; the rest as on forewing.

Underside whitish, rather glossy, the forewing tinged with cream-buff and with the costal margin brighter; unmarked, or (the forewing only) with the faintest possible indication of greyish lines.

Bingerville, Ivory Coast, 1915 (G. Melou), a long series in coll. Tring Museum, including the type. Sédhiou, Senegal, 1917 (H. Castell), a short series in the same collection.

Probably widely distributed in Africa, representing the *inficita* group of the Indo-Australian Region. A worn ♂ from Kilwa, German East Africa, shows the same structure, and a ♀ from Mayotte, Comoro Islands, the same facies; other worn material is more doubtful.

The much shorter ♂ hindtarsus affords a ready distinction from *adelpharia* Püng.

70. *Scopula tumiditibia* (Warr. MS.) sp. nov.

♂♀, 19 mm. Face black, pale at lower edge. Palpus mixed with black above. Vertex whitish buff. Antennal joints in ♂ slightly projecting, ciliation 2. Thorax and abdomen concolorous with wings. Foreleg as far as first joint of tarsus darkened on inner side; hindtibia in ♂ enormously developed, about as long as abdomen, strongly dilated and with a long ochreous-tinged hair-pencil which reaches to the end of the extremely short tarsus.

Forewing rather narrow, termen smooth, very gently curved; pale cream-buff, clouded with pinkish buff and with some irregular black irroration; lines marked with stronger irroration; antemedian weak, oblique from one-third hindmargin, angled in cell; median weak, excurved beyond the black cell-dot, deeply incurved behind M^1 ; postmedian irregular, lunulate-dentate, incurved between the radials and behind M^1 , thickened at these points, especially about R^2 ; subterminal shades weak; termen with sharp triangular black interneural dots; fringe almost unmarked.—*Hindwing* relatively large, at least in the ♂; termen smooth, rather full, especially about R^3-M^1 ; cell-dot in ♂ larger than on forewing, paler in centre; first line wanting; median shade diffuse, curving inside cell-dot; the rest as on forewing.

Christmas Island (C. W. Andrews), in various collections; the type ♂ (March 1898) in coll. Tring Museum.

Misidentified by Hampson (Andrews's *Monograph of Christmas Island*, p. 71) as *optivata* Walk. I see no special resemblance; apart from the remarkable ♂ hindtibia it differs in the narrower forewing, less fleshy colour, strong postmedian markings at R^2 , large cell-spots of ♂ (especially on hindwing), and other points.

71. *Scopula latitans* (Warr. MS.) nom. nov.

Accidalia reconditaria Snell., *Tijdschr. v. Ent.* xv. 76. t. 6. f. 8, 9 (1872) (nec Walk. 1861), (Lower Guinea).

Emmillis latitans Warr. MS., in coll. Tring Museum.

Mr. Warren seems to have suppressed his *latitans* in favour of *reconditaria* Snell., which he has clearly identified correctly; but as the last-mentioned name is preoccupied, I propose to substitute that of *latitans*.

ADDENDA.

During the months which have elapsed between my handing in the above paper and its being found possible to send it to press, several further novelties have been worked out, and in order to bring my work as nearly as possible up-to-date the following descriptions are added.

SUBFAM. HEMITHEINAE.

1. *Comibaena multigruma* sp. nov.

♀, 29 mm. Face green, finely edged with white. Palpus white, mottled with seal-brown at the ends of the first and second joints and on the third. Crown green, with narrow white anterior edge. Thorax above green, with a cream-whitish anterior band; beneath white. Abdomen above green in middle, with large anterior and posterior seal-brown blotches; beneath white. Legs white, with some blackish and seal-brown spots and dots, particularly at the knees and on the whole of the foretibial tuft.

Forewing broad, with termen strongly curved behind middle; SC^1 rather long-stalked, SC^2 arising beyond SC^3 , R^1 free, closely approximated, for a very short distance, to the subcostal stalk, then curving away; bright green, as in the allies; costal margin broadly whitish; markings seal-brown; cell-dot small; a small blotch (rather more chocolate than the rest) near hindmargin 2 or 3 mm. from base, not reaching M (resolvable with lens into separate though dense irroration); a large, irregular distal blotch from tornus to R^1 , nearly 3 mm. in width at hindmargin, its proximal edge deeply indented at M^2 and excavated between M^1 and R^3 , where its boundary-line describes a weakly M-shaped figure, its distal edge quitting the termen in front of M^3 , indented between M^1 and R^3 ; termen with seal-brown interneural dots; fringe mostly dark, varying in intensity.—*Hindwing* with termen rather fully rounded; a small cell-dot; a large apical blotch, proximally sinuate behind R^1 , its posterior boundary reaching R^3 proximally but receding somewhat distally, two small orange spots enclosed close to termen before and behind SC^3 ; a very small dark tornal spot; terminal dots strongly elongate into dashes in anterior half; fringe as on forewing.

Underside whitish green, rather brighter at base of forewing, the cell-dots present; shadowy reflections of the dark blotches of upperside; fringe paler than above.

Hydrographer Mountains, 2,500 ft., British New Guinea, February 1918 (Eiehorn brothers). Type in coll. Tring Museum.

2. *Neromia* (?) *propinquilinea* sp. nov.

♀, 27–32 mm. Face red. Palpus fully one, third joint distinct, not minute; reddish, beneath pale. Tongue well developed. Crown green, narrowly white in front. Antenna lamellate, with curved teeth nearly as long as diameter of shaft. Thorax and abdomen above green, with a white (in places yellow-tinged) ridge from metathorax to the whitish anal extremity; beneath whitish. Foreleg reddish.

Forewing with termen less straight than in most *Neromia*, being curved or

almost bent in middle, more oblique posteriorly than anteriorly; DC³ rather deeply angled inward; M¹ just separate; bright light-green with some scattered metallic blue scales and with fine, moderately distinct, mostly elongate, transverse whitish strigulation; veins slightly yellow-green; costal edge whitish, separated from the ground-colour by a line of yellow; lines whitish; antemedian fine, subobsolete, from before one-fourth costa to before one-third hindmargin, very slightly incurved behind M; postmedian at scarcely three-fifths, thus more proximally placed than usual, nearly straight or slightly wavy, with faint suggestion of outward teeth at the veins, at least at R¹ and M²; fringe yellowish white.—*Hindwing* with termen rather full, slightly bent about R³; SC² very shortly stalked or just separate, M¹ just separate; first line wanting; second little beyond middle of wing, straightish from costa about to R², then very slightly curved, then again straightish; fringe yellowish white.

Underside much paler, whitish blue-green, unmarked; costal margin of forewing buff, of hindwing whitish; terminal line and fringe of both wings whitish.

Sédhiou, Senegal, July 5–12 (type), March 25–27, May 21, 1917 (H. Castell). All in coll. Tring Museum.

On both wings a very faint and minute reddish cell-dot is discernible with the lens, placed on DC³ well behind the origin of R² and suggesting together with the white dorsal ridge of abdomen a definite affinity with the *rubripunctilla* group of *Neromia*. The ♀ antenna being formed nearly as that of the ♂ of *clavicornis* Prout (NOVITATES ZOOLOGICAE, xxii. 319), that of the ♂ will probably prove well pectinate, and the new species will link up *Neromia* with *Neurotoca* in exactly the same way in which some species of *Omphax* link that genus with *Heterorachis*. The angulation of DC³ is rather suggestive of *Neurotoca*, but is perhaps not more extreme than in certain examples of *Neromia picticosta*, *cohaereus* or *impostura*.

3. *Microloxia polemia* sp. nov.

♀, 21–22 mm. Face red. Palpus fully 2, second joint with less strongly projecting scales above than in *herbaria* Hb., third joint about as long as second; reddish above. Tongue developed. Antenna with joints scarcely projecting, ciliation minute. Vertex green, very narrowly white-edged in front. Thorax and abdomen above green, becoming paler posteriorly; beneath whitish. Foreleg mostly reddish on inner side.

Forewing broad, costa very gently curved, termen oblique, straightish to R³, then very slightly curved (about as in *Syndromodes cellulata* Warr.); SC¹ anastomosing with C, R¹ barely stalked, R² rather extremely placed, M¹ connate; green, nearly as in *Chlorissa cloraria* Hb. or slightly deeper; costal edge ochreous; lines whitish, extremely fine and feeble, sometimes not traceable; antemedian apparently about parallel with termen, not discernible in front of cell; postmedian farther from termen than in *herbaria advolata*, slightly bent inward in front of R³ and more markedly behind M³; fringe concolorous in proximal half, with a very fine whitish line at base, whitish green in distal half, separated from ground-colour by a fine white line.—*Hindwing* with termen rounded; SC² stalked, M¹ stalked; concolorous with forewing, the lines obsolete.

Underside paler green, unicolorous.

Kut-al-Amara, August 7 (type and another) and August 9, 1918, in coll. L. B. Prout, kindly presented by the captor, Mr. P. A. Buxton.

Rather broader winged than *halimaria* Chrét., to which possibly it is more nearly related than to *herbaria*.

SUBFAM. STERRHINAE.

4. *Anisodes (Pisoraca) poeciloptera* sp. nov.

♂♀, 36-45 mm. Closely akin to *lutearia* Dewitz (*Verh. Leop.-Car. Akad.* xlii. 84, t. 3, f. 17); sometimes almost identical in coloration, much more variable, oftener more rufescent, the dark cloudings commonly stronger and more extended. Hindfemur of ♂ clothed with curled hair, as in *lutearia*. Wings on an average slightly broader.

Forewing with costal margin almost as strongly darkened as in *leonaria* Walk. (*List Lep. Ins.* xxii. 635), which is distinguishable, *inter alia*, by the glabrous ♂ hindfemur; black dots on antemedian shade generally poorly developed; median shade not projecting distally at R¹, on the other hand almost or quite meeting the postmedian shade at R², with the consequence that a regular oval pale patch stands out prominently between the dark costal margin, R², the median and postmedian shades, providing a ready means for picking out *poeciloptera* from its allies by eye; distal cloudings at the radials and between M¹ and hindmargin commonly strong, though never obliterating the subterminal and usually leaving a pale terminal spot in front of SM².—*Hindwing* with the median shade thick, almost or quite confluent with the postmedian about R² and M¹; distal cloudings stronger than in *lutearia*, especially between M¹ and abdominal margin.

Underside also variable, but in general less irregularly mottled and irrorated than in *lutearia*, the generality of forms being rather uniform ochreous or orange-ochreous as far as the postmedian, and with diffuse rather ill-defined redder cloudings distally.

Ivory Coast: Bingerville (G. Melou), a long series, including the type; Nigeria: Lagos, Warri, Degama.

Described from extensive material in coll. Tring Museum, but no doubt generally distributed in collections; hitherto assumed to be aberrant forms of *lutearia*.

5. *Anisodes (Pisoraca) dewitzi* sp. nov.

Ephyra lutearia ♀ Dewitz, *Verh. Leop.-Car. Akad.* xlii. 84, t. 3, f. 21 (1881) (nec ♂).

♂♀, 32-38 mm. Again close to *lutearia* and with similar ♂ hindfemur. Ground-colour browner (less yellowish).

Forewing with costal margin on an average rather more heavily dusted than in *lutearia*, yet not presenting the darkened appearance of *poeciloptera*; markings nearly as in *lutearia*, median shade generally more slender, its teeth at R² and M¹ weaker, the pale band beyond consequently appearing less interrupted; postmedian line of dots rather more incurved between the radials and especially posteriorly; distal cloudings at the radials always weak, those posteriorly to M¹ on the contrary often (as in Dewitz's figure) very strong, sometimes nearly black.—*Hindwing* with corresponding distinctions.

Underside much as in the generality of *pocilloptera*, on an average more reddish, the reddish distal cloudings more strongly pale-mottled in their outer part.

Ivory Coast : Bingerville (G. Melou), including the type ; Nigeria : Warri, Degama ; Gaboon : Lambarené, on the Ogove River ; Upper Congo : Yakusu.

Described from a good series in coll. Tring Museum. Differences in the shape of uncus, of tegumen, of valve, and its armature confirm the validity of the species in this group.

As ab. (?) **transmuta ab. nov.** I describe a colour-form in which both wings have a paler ground-colour, generally with a fleshy tinge, and all the markings are olive-green. Bingerville, both sexes, including the type ; Warri, 2 ♀♀. Genitalia not yet studied, but as some nearly typical examples show a tinge of greenish in the markings, I do not think this can be more than an aberration.

6. *Anisodes paratropa* sp. nov.

♀, 46 mm. Differs from the *lutearia* group in having the termen of both wings deeply crenulate, with pointed teeth at the vein-ends, that at R² (especially on hindwing) considerably shortened. In the absence of the ♂ it is not even certain that it belongs to the same structure group.

Wings broad.—*Forewing* deep fleshy, with olive-grey irroration ; costal margin more densely irrorated, markings about as in *dewitzi*, olive-grey ; ante-median not very deeply curved outward in cell, bearing black dots on SC and SM² but scarcely on M ; cell-mark narrower than in *dewitzi* ; median shade rather more vertical anteriorly, the proximal curve behind M¹ very abrupt ; distal shades rather vague, the posterior not stronger than the radial.—*Hindwing* similar ; the white, dark-edged cell-mark rather more elongate than in the *lutearia* group.

Underside paler than in the *lutearia* group ; the forewing except behind fold, the hindwing scarcely except in distal area, with pinkish irroration or minute strigulation ; cell-mark indicated, especially on forewing ; median shade indicated on forewing only ; both wings with pinkish postmedian line, accentuated by darker dots on the veins.

Nguelo, Usambara (Dr. Kummer). Type in coll. Tring Museum.

7. *Anisodes (Brachycola) jocosa clara* subsp. nov.

♂♀. Differs from the other eastern forms (*j. fimbripedata* Warr., NOVITATES ZOOLOGICÆ, ix, 355, and *glycydora* Turn., *Proc. Linn. Soc. N.S. Wales*, xxxii, 684) in having the dark irroration finer and sparser, the dark shading which accompanies the zigzag median line almost entirely obsolete, the two costal spots of this line sharply black ; the subterminal dots behind SC¹, the two between the radials and the one between the medians sharply expressed. In all these respects nearer *j. jocosa* Warr., from Assam, from which—like all the eastern races—it differs in its rather lighter ground-colour and in having the median line of both wings more distally placed, the cell-dot of forewing smaller and the cell-ring of hindwing larger, more narrowly margined with black.

New Guinea, Admiralty, Vuleau, Rook, Trobriand, and Fergusson Islands. Type ♂ from Upper Aroa River, British New Guinea, March 1903 (A. S. Meek), in coll. Tring Museum.

8. *Anisodes (Brachycola) cora* sp. nov.

♂, 36 mm. Close to *niveopuncta* Warr. (NOVITATES ZOOLOGICAE, iv. 48). Body and wings above paler, less fleshy-tinged.—*Forewing* with markings more strongly expressed; cell-dot enlarged into a small elongate ring, having a few pale scales in its centre; median shade more deeply dentate, especially on R³ and M¹.—*Hindwing* with the termen slightly more crenulate than in *niveopuncta*; markings corresponding to those of forewing, the cell-spot formed as in many *niveopuncta*, the small white pupil being surrounded by a moderately thick black ring.

Near Octakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December 1910 (A. S. Meek). Type in coll. Tring Museum.

9. *Anisodes ockendeni* sp. nov.

♂♀, 29–30 mm. Smaller than *pintada* Dogn. (*Ann. Soc. Ent. Belg.* xxxvii. 159); palpus in both sexes a little longer, second joint perhaps less rough-scaled above; hindtibia of ♂ with a rather strong hair-pencil, proximal spur wanting.

Forewing rather less elongate than in *pintada*, the red irroration denser, the grey cloudings, on the other hand, weaker, though variable (in the Huancabamba specimens nearly as in *pintada*); cell-ring on an average smaller, though variable, sometimes (as also sometimes in *pintada*, teste Dognin) predominantly black with only a small white pupil; postmedian line of dots more proximally curved anteriorly.—*Hindwing* with corresponding distinctions.

S.E. Peru: La Oroya (including the type ♂), Tinguri, and Santo Domingo, a long series in coll. Tring Museum, collected by G. Ockenden. Also from E. Peru: Huancabamba, near Cerro de Pasco; Ecuador: Paramba; Colombia: Muzo and Popayan; Bolivia: Chulumani.

I cannot find that this variable little species has ever been named. Apart from its less red colour, it differs from *rufulata* Warr. (NOVITATES ZOOLOGICAE, xi. 510) in having the markings less oblique. Evidently Mr. Warren never differentiated it, as specimens in the Tring Museum are variously labelled *pintada* Dogn., *urcearia* Guen. (!), *stramineata* Warr., *ochricomata* Warr., *dispergaria* Möschl., *tolinta* Schaus.

10. *Anisodes curtisi* sp. nov.

♂, 37 mm. Similar to *alienaria* Walk. (*List Lep. Ins.* xxvi. 1586). Lower part of face whiter. Midtibia glabrous. Hindfemur glabrous; hindtibia with the proximal spur wanting.—*Forewing* rather less broad; venation normal (areole present, as in *alienaria*, but SC⁵ not arising—as in *alienaria*—from near R¹ and diverging, but running almost parallel with R¹ throughout); less clouded with fleshy grey than in *alienaria*; cell-ring smaller; median shade less broad.—*Hindwing* with corresponding distinctions.

Underside less clouded with pink than in *alienaria*, the pink markings consequently standing out more distinctly.

Penang, January 1897 (Curtis). Type in coll. Tring Museum.

May be placed next to *effeminata* Prout (*Ent. Mitt. Deutsch. Ent. Mus.*, iii. 244), which is a broader-winged insect, with rather longer palpus, differently coloured face, different cell-mark of hindwing, etc.

11. *Anisodes incumbens* sp. nov. .

♂, 38 mm. Nearly related to *recumbens* Warr. (NOVITATES ZOOLOGICAE, ix. 358), differing as follows :

Wings narrower (termen of hindwing straightish from R^1 to tornus, except for the small teeth), ground-colour much more ochreous, markings grey with a slaty tinge.—*Forewing* with costal margin grey ; median line even more oblique, reaching costa close to postmedian ; the shade which parts from it about the middle of the wing and runs to termen between the radials better developed than in *recumbens*, not interrupted.—*Hindwing* with the cell-ring less black and less elongate than in normal *recumbens*.

Markira Harbour, S. Christoval, May 1–9, 1908 (A. S. Meek). Type in coll. Tring Museum, unfortunately unique.

Possibly a remarkable subspecies or aberration of *recumbens*, but this seems scarcely credible. In a good series of that species before me from Bougainville, Choiseul, Vella Lavella, Guizo, Kulambangra, New Georgia, Rendova, Isabel and Florida Islands, there is nothing at all approaching it in shape or colour.

12. *Anisodes epicoccastris* sp. nov.

♂, 34 mm. Face narrowly red above, then whitish with red irroration, which becomes weak below. Palpus with second joint reaching beyond frons, third joint long (about = second joint) ; red above, white beneath. Head and body concolorous with wings. Hindleg long and slender, glabrous, tibia with terminal spurs only.

Wings in shape, colour, and markings almost exactly like an overgrown *griseata* Warr. (NOVITATES ZOOLOGICAE, iii. 380), with the markings rather shadowy ; but that species belongs to the section *Stibarostoma*, with essentially different palpus.—*Forewing* with the oblique shade from hindmargin between antemedian and median lines to termen between the radials rather broad but ill-defined ; terminal dots (as also on hindwing) minute and inconspicuous, red rather than black.

Underside pale, extremely weakly marked.

Upper Aroa River, British New Guinea, February 1903 (A. S. Meek). Type in coll. Tring Museum.

13. *Anisodes (Perixera) faustina* sp. nov.

♂♀, 30–35 mm. Extraordinarily like the largest, lightest (most sparsely irrorated) examples of *festiva* Warr. (NOVITATES ZOOLOGICAE, xiii. 90*), which has the hindfemur glabrous. The new species, however, has the typical structure of the section *Perixera* (Meyr.), the distal half, or rather more, of the ♂ hindfemur bearing a suberect tuft of red hair. *Face white in lower half* (in *festiva* red throughout). Otherwise absolutely constant differences can scarcely yet be indicated.

Forewing with cell *slightly* shorter (appreciably less than one-half ; in *festiva* almost one-half) ; cell-dot generally (in *festiva* very rarely) shaded with red ;

* Described with query as a *Perixera*, erroneously transferred to *Pisoraca*, NOVITATES ZOOLOGICAE, xiv. 144. It is really a "*Perixera*" (in sensu Warr., nec Meyr.), i.e. an *Anisodes* in sensu Turn.

median shade rarely (in *festiva* generally) touching the cell-dot.—*Hindwing* with a larger, predominantly red, patch at end of cell (but that of *festiva* is at times larger and redder than in Warren's type).

Forewing beneath in general less heavily suffused with red than in *festiva*.

Dutch New Guinea: Upper Setekwa River, 2,000—3,000 ft., August 1910 (type and two other ♂♂), September 1910 (1 ♂); Mount Goliath, 500 ft., February 1911 (1 ♂). British New Guinea: Biagi, Mambaré River, 5,000 ft., February 1906 (1 ♀). All in coll. Tring Museum, collected by A. S. Meek. In the two last-named localities *festiva* occurred with it.

14. *Anisodes* (*Perixera*) *palirrhoea* sp. nov.

♂ ♀, 30–34 mm. Facies and coloration of *multipunctata* Warr. (NOVITATES ZOOLOGICAE, vi, 336) * but considerably larger, perhaps slightly longer-winged. Palpus of ♂ with third joint longer (about as long as second). Face below less pure white. Femoral tuft of ♂ deeper red.

Forewing with the cell-mark narrow, generally obsolete posteriorly, only its anterior black dot sharply expressed; median grey line deeply zigzag, its proximal (interneural) and distal (neural) darker dots sharply expressed, so as almost to suggest the appearance of a double line; blackish confluent or subconfluent spots between the postmedian and subterminal often well developed costally, between the radials, and from M¹ to hindmargin, though subject to great variation.—*Hindwing* with cell-mark much narrower than in *multipunctata*, its outline extremely fine or subobsolete, chiefly marked by a large black anterior dot and a small, more red-mixed posterior one; median shade formed as on forewing but often weaker; distal dark spots nearly correlated to those of forewing, the posterior one in the most strongly-marked examples forming a large and conspicuous tornal patch, traversed by the pale subterminal.

Solomon Islands, widely distributed (Choiseul, Vella Lavella, Guizo, Kulambangra, New Georgia, Rendova), strangely misidentified by Mr. Warren as *porphyropis* Meyr., and hence not hitherto described. Type from Vella Lavella, March 1908 (A. S. Meek), in coll. Tring Museum.

15. *Anisodes rudis* sp. nov.

♂ ♀, 42–46 mm. Face and palpus red above, white below; palpus fully 2, third joint in both sexes about as long as second. Crown white, almost entirely covered with black scales except anteriorly. Antenna blackened above, clavola white beneath; pectinations in ♂ long. Body above mostly concolorous with wings, the thorax crossed in front by a narrow leaden-grey band, the abdomen becoming paler at extremity; beneath whitish, the pectus mixed with dull pink. Midtibia of ♂ densely clothed with very long white and pinkish hair.

Wings robust.—*Forewing* with areole wanting; vinaceous cinnamon, with very fine dark-grey irroration, giving a general effect of hazel; costal margin blackish; lines black-grey, rather diffuse and not very sharply defined; antemedian from before one-fourth costa, rather oblique outward to fold, then obsolete, reappearing more proximally as a short streak from hindmargin 4 mm.

* I think this is a synonym of *thermosaria* Walk. (*List. Lep. Ins.* xxvi, 1607), but as I have no Borneo material before me I prefer to use Warren's name.

from base; median shade rather beyond middle, slightly excurved in anterior half and incurved in posterior; postmedian from five-sevenths costa, slightly angulated inward subcostally, then forming a long and gentle outward curve, at fold gently incurved, reaching hindmargin rather near tornus, some blacker vein-dots on its outer side increasing its otherwise feeble arenulation; cell-mark rather long-oval, pale-centred but inconspicuous; very faint indications of the proximal subterminal shade; terminal interneural dots minute and not strong. —*Hindwing* with termen very slightly or scarcely bent at R^3 ; antemedian line faint; cell-dot sharply white, inconspicuously dark-bordered; median shadowy, apparently encircling the cell-dot, at abdominal margin rather more distinct; postmedian angulated at R^3 , the black dots (or small dashes) more sharply expressed posteriorly than anteriorly; the rest as on forewing, the fringe slightly paler.

Underside deep fleshy pink, the markings scarcely indicated; terminal dots rather distinct, partially—especially on hindwing—connected by a dark grey line.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3,500 ft., October—December 1910 (A. S. Meek). Type ♂ and 2 ♀♀ in coll. Tring Museum. A very damaged ♀ from Sandakan, N. Borneo, appears to agree perfectly, in which case the species—like several of its congeners—has a wide distribution.

Evidently closely akin to *sciota* Turn. (*Proc. Linn. Soc. N.S. Wales*, xxxii. 692) from N. Queensland and *subrubrata* Warr. (NOVITATES ZOOLOGICAE, xii. 10) from the Solomon Islands.

16. *Anisodes dispilota* sp. nov.

♂, 30 mm. Structure of *decussata* Scheller (*Sepp's Surin. Vlind.* iii. 287, t. 132) = *delineata* Warr. (*Proc. U.S. Nat. Mus.* xxx. 428), the hindtibia being extremely short, smooth, the first tarsal joint greatly elongate. Smaller.

Forewing appearing relatively broader, the costal margin being slightly more arched, the termen behind R^3 rather less oblique; rather paler, or of a less warm tone; proximal markings weak; longitudinal lines obsolescent; cell-ring minute; the line beyond slightly less oblique; postmedian line almost as in *decussata*; a dark blotch running from postmedian to termen between the radials.—*Hindwing* with a dark line close to base; antemedian and median lines slightly less approximated than in *decussata*; postmedian rather less strongly bent before middle; a dark blotch between M^2 and abdominal margin, reaching from postmedian line almost to termen.

St. Jean de Maroni, French Guiana. Type in coll. Tring Museum. A ♀ from Demerara, British Guiana (J. Rodway), in coll. British Museum.

17. *Bytharia lucida angusticincta* subsp. nov.

♂, 36–42 mm.; ♀, 48 mm. Both wings with the distal border considerably narrower than in *l. lucida* Warr. (NOVITATES ZOOLOGICAE, vi. 14), from the Bismarck Archipelago, only measuring 1.5 to 2 mm., at the apex of forewing 3–4 mm.; its proximal edge scarcely crenulate.

Rendova, Solomon Islands, February 1904 (A. S. Meek). 4 ♂♂, 1 ♀ in coll. Tring Museum. A single ♂ from Choiseul, slightly intermediate, but should be referred here.

Remarkably similar to *uniformis* Swinhoe (Java, Sumatra, Borneo), which is larger, the borders of a more leaden hue, separated from the ground-colour by a whitish line.

18. *Scelolophia littoralis* sp. nov.

♀, 19 mm. Similar to *nycteis* Druce (*Biol. Centr.-Amer.*, *Lep. Het.* ii. 122, t. 52, f. 28), to which I refer as subspecies the smaller, brighter *ignifera* Warr. (*Proc. U.S. Nat. Mus.* xxx. 436) from French Guiana, and the large, heavily clouded *latifasciata* Bastelb. (*Ent. Zeit.* xxii. 159) from W. Colombia. Hindtibia without the rudimentary fourth spur, which is usually present in *nycteis*. Body and wings dark, the forewing as far as the end of the cell (except costally) and the hindwing in proximal half heavily suffused, thus most recalling *nycteis latifasciata*.

Forewing with cell somewhat shorter, the median shade (which is curved somewhat inwards behind the vague cell-mark) more proximally placed; the narrow dark sinuous postmedian band (characteristic of *nycteis* and the new species) more proximally placed, scarcely farther from cell than from termen. — *Hindwing* with a vague sinuous median band parallel with the postmedian.

Barranco, near Lima, April 1, 1913 (H. O. Forbes). Type in coll. Tring Museum, together with a more rufescent, almost uniformly suffused ♀ taken the following day.

A ♂ from Callao, in coll. British Museum, doubtless referable here, shows nearly the same structure as *nycteis*, but has the sex-tuft of the underside of the hindwing apparently rather less elongate and more concentrated (roundish); wings rather broad, hindwing with termen slightly bent in middle, its underside whiter. Recalls also *damaria* Schaus (*Tr. Amer. Ent. Soc.* xxvii. 193), which has no tuft on hindwing.

19. *Scopula alma* sp. nov.

♂, 19–21 mm. Face black. Palpus black, pale beneath. Vertex and antennal shaft white, ciliation slightly over 1. Collar ochreous. Thorax and abdomen concolorous with wings. Legs tinged with ochreous, the forecoxa above and forefemur and tibia on inner side blackish; hindtibia white, not very long, dilated, with long hair-pencil, tarsus almost 1.

Forewing not very broad, termen very gently curved, moderately strongly oblique; white with a strong fleshy or fleshy-ochreous tinge (as in *emutaria* Hb. or *flaccidaria* Zell.), and with scattered dark irroration; lines more brownish than in the species named; antemedian obsolete costally, weak throughout, excurved, rather near the cell-dot; cell-dot small, black; median shade oblique, obsolete costally, moderately strong from R¹ or R² near the postmedian to hind-margin at or slightly before the middle, almost straight; postmedian fine, not very strong, slightly accentuated at the veins, placed about 1.5 mm. from termen, parallel therewith, obsolescent costally; subterminal line white, little undulate, rather broader than in *emutaria*; termen with sharp black interneural dots; fringe slightly paler, at the tips free from irroration. — *Hindwing* with termen very feebly bent at R²; antemedian line wanting; median straight, well proximal to cell-dot; postmedian straightish or little curved, farther from termen than on forewing; subterminal nearly parallel with termen; termen and fringe as on forewing.

Forewing beneath slightly greyer, especially at base, hindwing beneath somewhat whiter; both with cell-dot and the markings beyond; fringe whitish, scarcely irrorated.

Nairobi, British East Africa. The type June 1905, paratype May 1906, both in coll. Tring Museum, collected by F. J. Jackson.

Except in size, this rather recalls some of the tailed species—*emutaria* Hb., *perlata* Walk., etc. Perhaps near *obliquisignata* Bastelb. (*Deutsch. Ent. Zeit.* 1909, p. 319), which I have not seen.

20. *Scopula opperta* sp. nov.

♂♀, 24–28 mm. Face black-brown, narrowly whitish below. Palpus black-brown, whitish beneath. Antennal joints in ♂ slightly projecting, ciliation about 1. Vertex white. Collar more or less buff. Thorax and abdomen whitish, dorsally with some grey irroration. Fore and middle legs somewhat buff, the former somewhat infuscated on inner side; hindleg white, tibia in ♂ dilated with hair-pencil, tarsus almost 1.

Forewing shaped about as in *nesciaria* Walk. (*List Lep. Ins.* xxii. 750); white, finely irrorated with olive-grey, which easily discolours to a more brownish or fleshy tone; costal edge narrowly tinged with buff; lines olive-grey; ante-medial fine and weak or subobsolete, generally traceable from cell at one-third of wing-length to one-third hindmargin, with slight bend inward at fold and sometimes a slight tendency to form small spots or dots in cell, at fold, and behind M²; cell-dot black, minute; median shade obsolete costally, oblique from R¹ at two-thirds wing-length to scarcely beyond middle of hindmargin, feebly lunulate-dentate; postmedian at nearly three-fourths, feebly or scarcely lunulate-dentate, slightly inclining inwards costally, otherwise nearly parallel with termen, the customary radial and submedian curves very gentle or scarcely noticeable; subterminal white line of medium thickness, sinuous or lunulate-dentate, the grey shades on either side of it moderate or rather weak; terminal black dots small but well-developed, the anterior ones somewhat elongate, the posterior smaller and more detached; fringe slightly irrorated, with a clearer white line at base.—*Hindwing* rounded, scarcely bent at R²; first line wanting; median shade just proximal to (almost touching) the black cell-dot, which is slightly less minute than on forewing; the rest nearly as on forewing, but with the postmedian rather more proximally placed.

Underside whitish, the hindwing almost unmarked, the forewing more tinged with buff, especially anteriorly, and with minute cell-dot and weak, buff-tinged postmedian line; both wings with terminal dots present but weak.

Durban, Natal (G. F. Leigh). The type ♂ in coll. Tring Museum.

A few ♀♀ from Durban and other localities in Natal have been known to me for several years, scattered in various collections, but I hesitated to describe it, lest it might be a mere colour-form of *nesciaria* Walk. or *latitans* Prout (= *reconditaria* Snell., see Walk.). The ♂ structure, however, shows that it comes nearer to *spoliata* Walk.; differs in having the hindtibia rather thicker, tarsus barely as long, antennal ciliation rather shorter, the colouring of the wings different, the postmedian line even, not punctiform, the anterior terminal dots elongate.

21. *Hamalia perbrunneata* sp. nov.

♂, 19–21 mm. Closely allied to *brunneata* Warr. (NOVITATES ZOOLOGICAE, xii. 322), structure nearly the same, though the hindtarsus may be a trifle longer (well over one-half tibia, the first joint very slightly thickened, which is scarcely appreciably the case in *brunneata*). Head and body coloured as in *brunneata*. Wings brighter brown, less infuscated, the narrow dark borders and the terminal blotches of forewing (between the radials and at tornus) consequently showing up more distinctly.

Forewing with median shade slender (in *brunneata* thick), usually crossing—in one example proximal to—the cell-dot; postmedian line a little farther from termen than in *brunneata*, less angulated at R¹.—*Hindwing* with termen slightly less gibbous than in *brunneata*, postmedian line markedly farther from termen.

Underside much lighter and less cupreous than in *brunneata*, especially on the hindwing, which is, moreover, usually much less strongly marked; postmedian line placed as above, on the hindwing less excurved behind middle than in *brunneata*.

Pozuzo, Huanaco, E. Peru, 800—1,000 m., in various collections. Type and others (W. Hoffmanns) in coll. Tring Museum. Also from Calama, Rio Madeira, and from Charaplaya, Bolivia.

Has been mixed with *brunneata* Warr., of which the type from Cundimamarca remains unique. I do not think it can be even a subspecies, but in any case it must be named. The group to which these species belong differs from true *Hamalia* in the stalking of SC² of the hindwing and in the genitalia, and will require generic separation.

GENUS *Lobocleta* Warr.

Lobocleta Warr., *Proc. U.S. Nat. Mus.* xxx. 450 (1906).

Metasiopsis Prout, *Tr. Ent. Soc. Lond.* 1910, p. 219.

I think my *Metasiopsis* only differs essentially from *Lobocleta* Warr. in the non-pectinate ♂ antenna, and should be regarded merely as a subgenus. It is unfortunate that Warren mistook the bulk of this fairly extensive genus for *Ptychopoda* and only established a new genus on a single aberrant member of it, and almost equally unfortunate that in discovering the necessity for the generic separation of the bulk I overlooked Warren's already existing name of *Lobocleta*.

22. *Lobocleta xenosceles* sp. nov.

♂♀, 21–22 mm. Face and palpus blackish, the latter pale beneath. Head and body concolorous with wings, the collar brighter ochreous. Antennal ciliation in ♂ slightly over 1, in ♀ minute. Midtibia in ♂ with a strong hair-tuft at end; hindtibia in ♂ dilated, rather elongate, with long strong hair-pencil (reaching nearly to end of first tarsal joint) and a small additional hair-tuft at extremity; hindtarsus in ♂ abbreviated (less than half).

Forewing shaped about as in *indecora* Warr. (NOVITATES ZOOLOGICAE, vii. 162) or *malepicta* Warr. (NOVITATES ZOOLOGICAE, xii. 46), colour intermediate between these, rather glossy, without (or with only very sparse and minute) dark irroration; markings about as in the species named, but, with the exception

of the black cell-dot, always weak, sometimes almost entirely obsolete; dots of the postmedian line usually better developed, at least at costa; fringe paler, especially distally, marked at base with small black dots opposite the veins.—*Hindwing* with termen scarcely waved; similar to forewing.

Forewing beneath with somewhat rosy flush, especially proximally, hindwing whiter; both very feebly marked.

Obidos, Amazons, October—November 1904 (M. de Mathan). Type ♂ and allotype ♀ in coll. Tring Museum. Also in the same collection, ex coll. Meyer, a ♂ labelled "Brazil" and 2 ♂, 2 ♀, merely labelled "S. America," all of which may be suspected of coming from the Amazons, as was certainly the case with many species in that interesting but badly localised collection.

23. *Lobocleta unigravis* sp. nov.

♀, 19 mm. (Face abraded.) Palpus short, brownish, beneath white. Head and body white, the body above with sparse black irroration; collar tinged with ochreous.

Forewing with termen gently curved, moderately strongly oblique; SC² from close to end of cell; white, with sparse black irroration (slightly more copious in proximal part of costal region); lines light ochreous brownish, the antemedian, postmedian, and two subterminals weakly expressed, the median rather stronger; antemedian from about one-fourth costa, rather oblique outward, sharply angulated in cell, then nearly straight to hindmargin before one-third, dotted with black on SM²; cell-dot rather large, sharply black; median shade just beyond it, obsolescent costally, angled outward on R¹ and R³, incurved between, oblique inward to hindmargin a little beyond middle, but slightly angled outward on SM², where it is accentuated by some black irroration; postmedian and proximal subterminal approximately parallel with median but more crenulate, more markedly angled outward on SM², the postmedian arising from a rather noticeable black dot on costa and irrorated with black about SM²; distal subterminal close to termen; black dots at vein-ends, the anterior ones particularly strong.—*Hindwing* not very long, termen slightly waved, rather strongly gibbous, feebly bent at M¹; SC²—R¹ stalked for about half their length; similar to forewing, the first line undeveloped, the median incurved proximally to the cell-dot.

Underside with the cell-dots and the postmedian costal dot of forewing strong, otherwise more weakly marked, the median and postmedian lines fairly well developed, terminal dots nearly as above; costal margin of forewing ochreous brownish.

La Plata town. Type in coll. Tring Museum.

A very ordinary-looking little species, yet not particularly reminiscent of any other. In some respects, though rather whiter, it somewhat recalls *Scopula albidulata* Warr. (NOVITATES ZOOLOGICAE, iv. 432).

24. *Ptychopoda subfervens* sp. nov.

♂♀, 20–25 mm. Very similar to *fervens* Butl. (*Tr. Ent. Soc. Lond.* 1881, 340). Both the colours paler, the ground-colour being whitish lavender-grey, the "red-brown" (burnt sienna or chestnut) markings more cinnamon-rufous.

Forewing with costal edge less darkened than in *fervens*, remaining rufous; antemedian line usually more complete, more strongly bisinuate; postmedian different in form, being acutely angulated outward on R^1 , but less deeply incurved behind M^2 than in *fervens*; the rufous band beyond not interrupted by the ground-colour between the median veins; subterminal line more sharply white; fringe paler.—*Hindwing* with the markings in general weakly expressed, but with a complete, well-defined white subterminal, which forms an acute, V-shaped proximal projection on R^2 .

Both wings beneath paler; forewing somewhat darkened along costal margin and with shadowy indications of the markings of the upperside; hindwing almost unmarked, with slight iridescence; both wings with complete terminal line.

St. Jean de Maroni, French Guiana, type ♂ and others in coll. Tring Museum, allotype ♀ in coll. Dognin. Also from Juan Vinas (Costa Rica) and Potaro (British Guiana), and a large, more ochraceous-marked ♀ from La Oroya, S.E. Peru, which latter may perhaps eventually prove to represent a local race.

25. *Ptychopoda palmiensis* sp. nov.

♂, 20–25 mm. Face black. Palpus black above, brown beneath. Vertex whitish brown. Antennal joints triangularly projecting, ciliation nearly 2. Thorax and abdomen concolorous with wings, collar brighter brown. Foreleg (except tarsus) darkened on inner side. Hindtibia dilated, longer than femur, fringed above and with long hair-pencil from femoro-tibial joint, tarsus extremely short.

Forewing with areole moderately large, all the subcostals stalked beyond it, SC^1 separating just before SC^3 ; brownish white, strongly irrorated with slightly rufescent brown; antemedian line not strong, obsolescent at costal strongly excurved between SC and fold and more slightly behind fold, oblique inwards to hindmargin; cell-dot rather strong, black; median shade obsolescent at costa, rarely strong, touching the cell-dot on its distal side, scarcely incurved posteriorly; postmedian sharper, somewhat lunulate-dentate, the two customary sinuosities; distal area darkened, leaving free a slight streak from costa just beyond the postmedian, a rather broad sinuous subterminal (formed nearly as in the *biselata* group) and some slight terminal spots; termen with blackish interneural dashes; fringe with small blackish dots opposite the veins.—*Hindwing* with termen waved and sinuous, slightly prominent at R^3-M^1 ; first line wanting, median proximal to cell-dot, postmedian little beyond centre, dark borders sometimes vague.

Forewing beneath sharply marked, darkened to median shade, distal area nearly as above, fringe paler proximally. *Hindwing* whiter, with strong black cell-dot and rather weak brown median and postmedian lines; terminal dashes strong.

Palmi Hills (W. H. Campbell). 5 ♂♂ in coll. L. B. Prout. Also in other collections.

26. *Cyllopoda janeira lugens* subsp. nov.

Hindwing with the black abdominal and distal borders broader than in *janeira* Schaus (*Proc. Zool. Soc. Lond.* 1892, p. 286), and in addition with a black

costal border above and beneath, which merely leaves free a slender, pointed streak of the ground-colour at base. Forewing in general with the yellow markings slightly reduced, as also the white scales at apex of fringe.

Castro, Parana (E. D. Jones). Type ♂ and 4 ♀♀ in coll. Tring Museum. Also in coll. E. D. Jones.

It seems that this is the "*approximans*" of Schaus and Warren, but not of Walker.

SUBFAM. LARENTIINAE.

27. *Lithostege buxtoni* sp. nov.

♂, 34 mm. Face blackish brown, paler in middle. Palpus short and slender; above dark, beneath pale. (Tongue concealed.) Antenna with fascicles of rather long cilia. Vertex and body light brown. Foretibia with terminal claws rather slender, the inner moderately long, the outer short.

Forewing rather narrow, costal margin faintly sinuous, apex round-pointed, termen very oblique, gently curved posteriorly, tornus rounded off; both areoles ample, their dividing vein from apex of cell, SC², SC³⁺⁴, and SC⁵ from apex of distal areole, R¹ from beyond its middle; very pale brownish with strong gloss (as in *Myinodes*); an oblique dark line from apex nearly to hindmargin about 3 mm. from base, consisting of a series of very shallow lunules separated by slight distal and posterior indentations on the veins, slightly more longitudinal between M¹ and M²; anteriorly to this line the colour is white for some distance, distally and posteriorly slightly deeper brown; fringe rather long, white, tinged proximally with brown, a shadowy brownish line dividing the two colours.—*Hindwing* narrow and elongate; C anastomosing with SC from near base to near end of cell; M¹ separate; glossy white.

Forewing beneath slightly more greyish, the line feebly showing through, at least in apical part.

Kangavar, Hamadan, N.W. Persia, 5,000 feet, December 6, 1918 (P. A. Buxton). Type in coll. L. B. Prout, kindly presented by the discoverer. A second ♂, considerably darker and with the line more deeply lunulate-dentate, has since come to hand from Mesopotamia (Shergat, Asshur, at light, December 27, 1919, H. D. Peile), and has equally kindly been presented to me by Mr. H. T. G. Watkins.

According to the ♂ antenna, will require a new section of the genus. With it will probably be associated—if my conjecture in Seitz, *Macrolep.* iv. 175 is correct—the enigmatical *chaoticaria* Alph.